

Butterflies of Western Ghats

Second Edition



Image by Vengolis



Image by Ashok Sengupta

Dr. Raju Kasambe

Butterflies of Western Ghats

An e-Book

Second Edition

2018

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Dedicated to
Two butterfly-passionate persons

Sri Isaac Kehimkar

the 'Butterfly-Man of India'



and

Sri Rajendra Ovalekar

A teacher who created a beautiful butterfly garden in Mumbai



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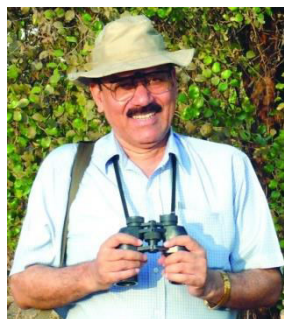
Abbreviations used in the book:

DSF: Dry Season Form

WSF: Wet Season Form

UP: Upperside (Dorsal side)

UN: Underside (Ventral side)



Foreword (to the First Edition)

Dr. Raju Kasambe, an ornithologist by profession, is an all round naturalist, interested in plants, insects, butterflies, birds, mammals and reptiles. He is a perfect staff of BNHS – the organization known for its natural history work for the last 134 years. Raju, as he is affectionately called by his colleagues and admirers, is an affable man and a prolific writer. I am proud to write Foreword for his new book, *Butterflies of Western Ghats*.

This is an e-Book which can be downloaded free of cost and used on any smart phone or computer. It is made as a simple PDF so that any species can be searched using the search option. This is the second eBook written by Raju. He has already published an eBook in Marathi on “*100 Common Birds in Maharashtra*” which was much appreciated in Maharashtra.

This e-Book has descriptions and photographic illustrations of 277 species of butterflies. Each page has information like common and complete scientific name, wings span, distribution, larval host plants, and information about the subspecies found in South India.

I think, this is the first of its kind e-Book on the subject, as books which are accessible to the masses are need of the day. Now a day, even Android Apps are becoming an important source of information. The e-Book has an entire chapter highlighting the importance of the Western Ghats as a ‘Biodiversity Hotspot’. The diversity and endemism of butterflies found here drives home the point that the entire Western Ghats should be conserved at any cost.

I am sure the e-Book will be useful to all, including butterfly lovers and naturalists.

Asad R. Rahmani

Former Director,
Bombay Natural History Society, Mumbai

Preface

If we want to spread knowledge about butterflies to the present generation, it should be provided in the most accessible and handy format. There are more chances of a nature lover referring to a book, if he has an easy access to it. Hence Android Apps and e-Books are the latest educational tools we must utilise. After publishing an e-Book on the “*Maharashtratil 100 Samanya Pakshi*” (aka 100 Common Birds in Maharashtra) in Marathi, I received tremendous response from bird watchers and equal satisfaction. I believe in sharing best of the photographs clicked by me for public usage on websites like Wikimedia Commons or Wikipedia under the Creative Commons License.

This e-Book is being published solely for the educational purpose and no commercial gains are expected out of it. It is free for downloading and distribution and does not bear any price. I urge butterfly enthusiasts and nature lovers to help with better quality photographs of the remaining species of butterflies found in the Western Ghats, so that another revised edition of this e-Book will still be more comprehensive and better.

I believe in sharing knowledge and propagation of knowledge for the conservation of the flora and fauna of our country and hope this will contribute in the conservation of butterflies in the Western Ghats.

Photographs taken by me are copyrighted under the Creative Commons Attribution 3.0 and 4.0 Licenses. These can be used by anybody for educational purposes. However, for photographs taken by others, the copyright remains with them. I suggest that the individual photographers be contacted, or the appropriate licenses be checked before they are used by anybody.

I request experts to suggest improvements in the e-Book. Please inform me if you find any mistakes in the e-Book, which can be informed to readers as errata.

I hope this e-Book will be of use to the amateur butterfly researchers and young nature lovers; it will give them company at the most inaccessible places. I look forward to your help by providing photographs of missing species and suggestions for the second edition of this e-Book.

Raju Kasambe

Acknowledgements

My sincere thanks to the following friends (in alphabetical order) who have contributed their beautiful photographs of butterflies for this e-Book. Some of the friends literally opened up their vast collections for me to take any photographs. I am grateful to all of them. Without these photographs the e-Book would not have been so useful. Many of them have selflessly contributed their innumerable photographs to Wikipedia and Wikimedia Commons making them available to the world without any expectations or gains.

Aditya Joshi, Amirtha Balan, Dr. Amol Patwardhan, Dr. Anand Narvekar, Anila Manalil, Aparajita Datta, Ashwatha K.N., Ashok Sengupta, Ayan Chakraborty, Dr. Balakrishnan Valappil, Blaise Pareira, Chinmayi S.K., Dattaprasad Sawant, David Raju, Delip Kumar Das, Dhaval Momaya, Divakar Thombre, Erin Silversmith, Felix, Firoz A.K., Gaurab Nandi Das, Gopakumar, Haneesh K.M., Harishchandra Mhatre, Hariharan Subramanian, Hemant Ogale, J.M. Garg, Dr. Jayant Wadatar, Kalyan Varma, Jeevan Jose, K. Mohan Raj, Kishen Das, L. Shyamal, Leema Robert, Makarand Kulkarni, Mandar Sawant, Manidip Mandal, Manu Gangadhar, Marvelyn Dias, Morry G., Dr. M.S. Mayilavahanan, Mukul Hinge, Nandish Songire, Omkar Joshi, Parag Giri, Parag Rangnekar, Parixit Kafley, Pinakin Karve, PKG Mohan, Pranav Gokhale, Pranav Ovalekar, Prashanth Bhat, Praveen G. Nair, Praveen J., R. Ravi, Raghu, Rahul K. Natu, Rajendran TM, Rajkamal Goswami, Ravi Vaidyanathan, Richard Parker, Rohith Sanjay, S. Ramasamy Kamaya Naicker, Sagar Sarang, Saish Borkar, Sanket Mhatre, Santosh Hatti, Sharan V., Shyam Ghate, Sithija I. Paranagama, Sneha, Shresh Deshpande, Subhajit Mazumder, Subhiksha S., Sujit Borkar, Dr. Tarique Sani, Tarun Karmakar, Uajith, Varun Omanakuttan, Dr. V.C. Balakrishnan, Vedant Kasambe, Vengolis, Vijay Barve, Vikas Madhav, Vinayaraj, Vivek Puliyeri, Yathin S. Krishnappa, Yogesh Tambat and Yuwaraj Gurjar.

I want to immensely thank the two websites (www.ifoundbutterflies.org and www.flutters.org) for making an exhaustive knowledge bank on Indian butterflies available to all. Thanks to Sagar Sarang, Neha Waikar, Sharan V., Neha Mujumdar and Ashok Sengupta for help in correcting the manuscript.

Dr. Deepak Apte (Director, Bombay Natural History Society) has always inspired me to write books against all odds. I learnt a lot from Dr. Asad Rahmani (Former Director, BNHS) and I feel indebted to him for his guidance. Mr. Isaac Kehimkar's books had always been the most referred and inspiring source for me since I started studying these flying jewels.

Support by many friends and colleagues at CEC and BNHS and my family has always helped me in keeping myself motivated.

Raju Kasambe

Introduction: Life cycle and Morphology of a Butterfly

Butterflies are classified under the Order Lepidoptera, together with the moths.

Life Cycle of Butterfly

To grow into an adult butterfly, butterflies go through of four stages. These are egg, caterpillar and pupa (or chrysalis) and the adult butterfly.

Egg

Like humans, there are male butterflies and female butterflies. After the fertilization of the female's eggs by the male's sperm, the female deposits the eggs on leaves or stems of plants. This is the first stage in the life cycle of a butterfly - the egg stage. Butterflies have their own choice of plant on which to lay eggs, they may lay eggs on one or many species of plants. But, they do not lay eggs on every plant. The eggs of each species are different in shape and size and can be spherical or oval etc. This stage lasts from days to weeks.

Caterpillar or Larva

The second stage occurs when then the egg hatches and gives rise to the butterfly larva or caterpillar. At this stage, which may last for several days or weeks, the larva spends its time eating and resting. Most butterfly caterpillars eat plant leaves but a few caterpillars can eat insects (*e.g. Apefly Spalgis epius* in India).

The development of caterpillars involves developmental stages called instars. When the caterpillars are growing their skin does not stretch or grow so much. So they shed or

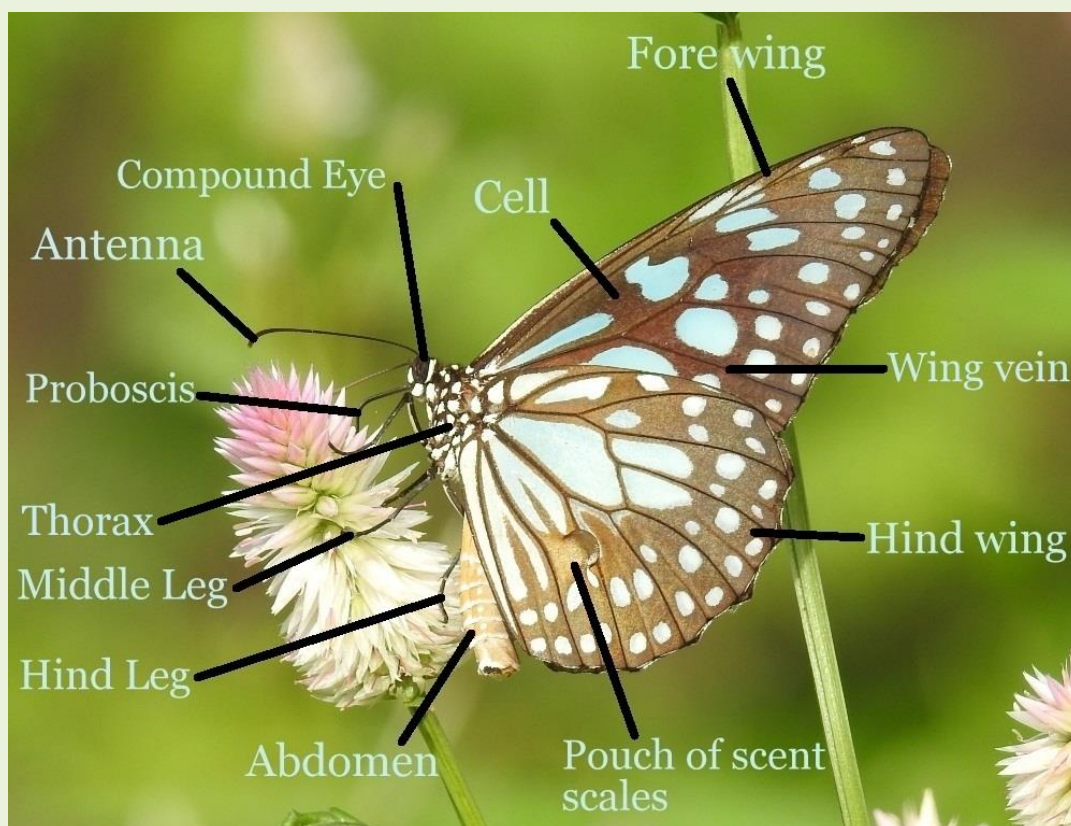
moult the skin. Each time they moult the skin, it is called an 'instar'. The butterfly undergoes about 4 to 6 moultings before finally going to the next stage, *i.e.*, pupation.



Images clockwise from top left: Egg of Common Palmfly; Caterpillar of Common Rose; Pupa of Common Rose; and Common Nawab adult. All by Raju Kasambe

Pupa

The third stage involves the transformation of the caterpillar into pupa or chrysalis. When the caterpillar has grown to its full size, it seeks a safe location for pupation. This location is usually the underside of the leaf but can also occur in the stems or secluded place on a tree trunk. Mostly it is hard to locate the pupa since its color usually camouflages with the background environment. From the outside, it may look like as if the pupa is resting, but inside the pupa, rapid changes or transformations are taking place. These transformations to make the parts that will make the beautiful butterfly are known as ‘metamorphosis’. Pupation may last for 2–3 weeks, after which the butterfly adult emerges from the pupa.



Butterfly underside morphology illustration (Blue Tiger Male). Image by Raju Kasambe

Butterfly

The fourth and final stage is the adult stage. It is a delight to see an adult butterfly emerge from the pupa. However, the butterfly cannot fly immediately after emerging out of the pupa. It spends some time (few hours or minutes) drying its body and wings before it finally takes off.

During this stage, the butterfly already has six legs and four wings—a pair of forewings and another pair of hindwings. When the butterfly is already an adult, it can gather nectar from flowers for its food and reproduce.

Morphology of a Butterfly

Here are the meanings of the terminology used to describe various body parts of a butterfly.

Head

Anterior portion of the butterfly's body containing the sensory organs and the brain.

Thorax

Portion of the butterfly's body divided into three segments; it contains the motor appendages, such as the legs and wings.

Wing vein

Protruding line that gives the wing its rigidity and enables the blood to circulate.

Cell

Constituent element of a butterfly's wing contained between the wing veins.

Antenna

Sensory organ made up of several segments and having mainly olfactory functions (sense of smell) and also helps in balance.

Compound eye

Organ of vision made up of thousands of facets that perceive shapes, colors, motion and distance.

Proboscis

Mouthlike part allowing the butterfly to feed through aspiration; the proboscis folds back onto itself to avoid interfering with flight.

Fore leg

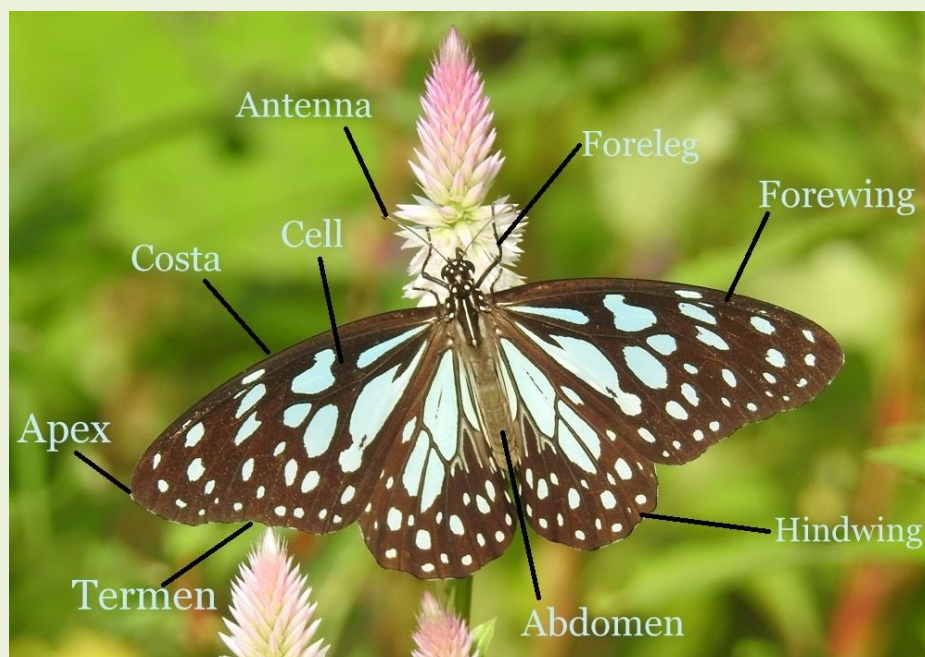
Articulated member attached to the first segment of the thorax and having powerful sensory organs.

Middle leg

Large articulated member attached to the central segment of the thorax and having powerful sensory organs.

Hind leg

Large articulated member attached to the terminal segment of the thorax and having powerful sensory organs.



Butterfly upperside morphology illustration (Blue Tiger Male). Image by Raju Kasambe

Abdomen

Posterior portion of the butterfly's body made up of 10 segments and containing the major vital organs, such as the heart, the intestines and the genital organs.

Hind wing

Appendage of flight attached to the terminal segment of the thorax.

Forewing

Appendage of flight attached to the central segment of the thorax.

Parts of wings

Here is an illustration showing parts of butterfly wings.

Difference between moths and butterflies

Moths are stout and fuzzy, whereas butterflies are slender and smooth.

Butterflies are diurnal (active during the day) whereas moths are nocturnal. There are some exceptions to this, as some butterflies are crepuscular and some moths are diurnal. Butterfly antennae are thin with club-shaped tips, compared with the mostly feathery or comb-like antennae of moths. While at rest, butterflies usually fold their wings back over the bodies, while moths

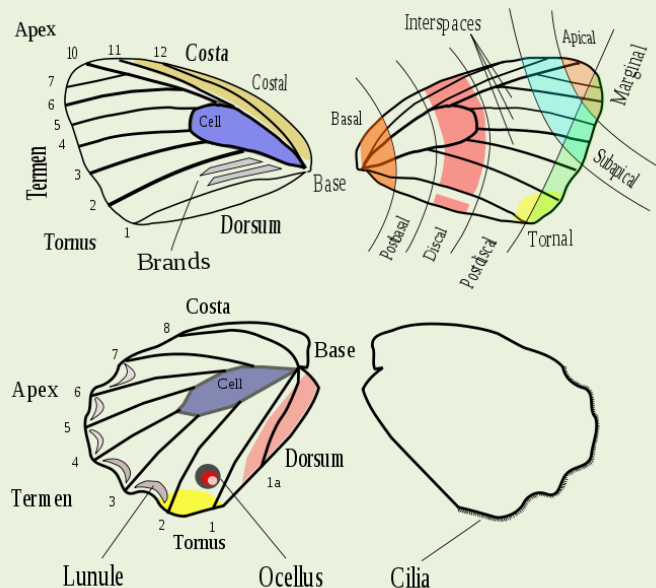


Illustration: By L. Shyamal

flatten their wings against their bodies or spread them out in a "jet plane" position.

Butterflies form pupa which are hard smooth and silkless. Moths make cocoons that are wrapped in silk coverings.



Images clockwise from top left:

Atlas Moth showing typical wing position (Image by Raju Kasambe); Blue Mormon showing club-shaped antenna (Image by Vinayaraj); Moth showing feathery antenna and furry body (Image by Alvesgasper); Comb-like antennae of a moth (Image by Raju Kasambe)

Western Ghats – Butterflies



Evergreen forests in Western Ghats in Periyar Tiger Reserve in Kerala. Image by Manu Gangadhar

Based on the distribution and status of butterflies and their host plants, Western Ghats can be divided into three biogeographical parts (Gaonkar, 1996).

Southern Western Ghats: The southern and most important part starts from just north of Nagercoil (in Tamil Nadu) up to the Palghat gap. This area is home to the highest number of species as well as endemics. Unfortunately, the lowland evergreen forests in this area have mostly been replaced with plantations other anthropogenic pressures exist here. The unique species of this area are Red-disc Bushbrown *Mycalesis oculus* and Palni Four-ring *Ypthima ypthimoides*. This area is home to around 317 species of butterflies.

Central Western Ghats: The second important part starts north of the Palghat Gap from the Nilgiri Wynaad area to South Goa. However, some endemic species are found even up to southern Maharashtra, at least up to Amboli Ghat area in Sawantwadi taluq, Sindhudurg district. Many endemic species are not found above Amboli Ghat. The species diversity is less than the southern part. The only species unique to this area is Red-eye Bushbrown *Mycalesis adolphei*. Butterfly fauna in three districts, viz., the Nilgiris, Coorg and North Canara are well documented. This area is home to around 316 species of butterflies.

Northern Western Ghats: The third part is in Maharashtra and south Gujarat. This area has less diversity with around 200 species reported north of Amboli Ghat. Many species from the central Western Ghats are not found here.

State-wise butterfly diversity of Western Ghats (Gaonkar, 1996):

Butterfly Families No. of species (Endemics)	States					
	Kerala	Tamil Nadu	Karnataka	Goa	Maharashtra	Gujarat
Papilionidae 19 (5)	19	19	19	18	13	11
Pieridae 33 (3)	31	31	29	27	24	23
Nymphalidae 96 (12)	95	94	92	70	59	41
Lycaenidae 101 (5)	93	97	98	78	71	51
Hesperiidae 81 (12)	76	75	78	56	40	32
Total species 330 (37)	314	316	316	249	208	158

A recent paper by Nitin *et.al.* (2018) has mentioned the occurrence of 336 species of butterflies belonging to six families in the Western Ghats. This paper has considered the exclusion of Dark Mottle *Logania distant massalia*, Singalese Hedge Blue *Udara singalensis*, White Arab *Colotis vestalis* and Blue-spotted Arab *Colotis phisadia*, and addition of Sinhalese Five-ring *Ypthima singala*, Nilgiri Jewel Four-ring *Ypthima striata*, Bengal Spotted Flat *Celaenorrhinus putra*, and Purple-spotted Flitter *Zographetus ogygia* in the fauna of Western Ghats. Of the 336 species, approximately 12% species are endemic to the Western Ghats, and 59 species are legally protected in India. The family-wise diversity is as follows: Papilionidae 19, Pieridae 32, Nymphalidae 101, Lycaenidae 100, Hesperiidae 82 and Riodinidae 2 species (Nitin *et.al.*, 2018).

The state-wise species numbers for Karnataka, Tamil Nadu, Goa and Maharashtra have increased as more intensive and systemic studies are taking place.



Forest in monsoon in Sanjay Gandhi National Park, Mumbai, Maharashtra. Image by Shreesh
Deshpande

Importance of Butterflies in Nature

75% of the world's food crops depend in part on pollination by bees and other species (including butterflies). Pollinators facing extinction: 40% of bees, butterflies and other invertebrates.

Source: Times of India dated 01 June 2018.

Why butterflies are important?

There are many reasons why butterflies and moths are important, both in their own right but also as quality of life indicators. Here is a summary of the main reasons for conserving butterflies and moths in the world.

As pollinators of crops and other flowers

Butterflies serve as important plant pollinators in the local environment, and help pollinate hundreds of economically important plant crops. The role played by pollination and cross-pollination in the development of crop varieties and evolution of plants is immense and not really understood well. The thousand-year old silk industry is also dependent on Lepidoptera (moths), but increased pesticide use around the world has caused population declines of silk moths.

Our natural heritage

Butterflies are the natural heritage of our country. The entire biodiversity we have is the treasure trove we have, which we have got from our ancestors and need to preserve them. Butterflies are flagship species for conservation in general, and in particular for invertebrates.

Intrinsic value

Butterflies and moths are intrinsically valuable and are worthy of conservation in their own right. Butterflies and moths are part of the life on the earth and an important component of its rich biodiversity. They have been around for at least 50 million years and probably first evolved some 150 million years ago. Butterflies and moths are a highly diverse group comprising over 250,000 species and make up around one quarter of all named species.

Aesthetic value

Butterflies and moths are beautiful. We humans love all beautiful things in nature. Butterflies add to the aesthetic value of any natural landscape and heritage. Many butterflies are iconic and popular. Butterflies have been studied for over 300 years by humans.

People like butterflies

There are many references to butterflies and moths in literature, from the Bhagwad Gita to Bible through Indian folklore modern day literature, and from poetry to musical lyrics. Butterflies are used

by advertisers and illustrators the world over as way of indicating that something is environmentally friendly. Butterflies are often portrayed as the essence of nature or as representing freedom, beauty or peace.

Educational value

Butterflies and moths have fascinating life-cycles that are used in many countries to teach children about the natural world. The transformation from egg to caterpillar to chrysalis is one of the wonders of nature.

Other educational aspects include the intricate wing patterns and iridescence, and as examples of insect migration.

Scientific value

Butterflies (and moths to a lesser extent) are an extremely important group of ‘model’ organisms used, for centuries, to investigate many areas of biological research, including such diverse fields as navigation, pest control, embryology, mimicry, evolution, genetics, population dynamics and biodiversity conservation.

The long history and popularity of butterfly study have provided a unique data resource on an insect group unmatched in geographical scale and timescale anywhere in the world. This has proved extremely important for scientific research on climate change.

Ecosystem value

Butterflies and moths are indicators of a healthy environment and healthy ecosystems. They indicate a wide range of other invertebrates, which comprise over two-thirds of all species. Areas rich in butterflies and moths are rich in other invertebrates. These collectively provide a wide range of environmental benefits, including pollination and natural pest control.

Moths and butterflies are an important element of the food chain and are prey for birds (like bee-eaters, drongos and flycatchers), bats and other insectivorous animals (like lizards and geckos). Butterflies and moths support a range of other predators and parasites (like the parasitoid wasps), many of which are specific to individual species, or groups of species.

As indicators of the health of environment

Butterflies have been widely used by ecologists as model organisms to study the impact of habitat loss and fragmentation, and climate change.

Health value

People enjoy seeing butterflies both around their homes and in the countryside. Social media groups of butterfly lovers in India have more than 20,000 members. These people photograph, survey and share butterfly information on social media. They travel thousands of kilometers in search of

butterflies. Now, butterfly gardening is becoming an important passion and many butterfly gardens are in the making in India. People feel de-stressed in the company of butterflies and they love to watch and photograph them.

Economic value

Thousands of people visit India each year looking for butterflies. Eco-tourism and now butterfly tourism is bringing in valuable income to many local tribes and butterfly garden owners across the country. Sikkim, Arunachal Pradesh, Assam, Kerala and Maharashtra have become hubs of butterfly tourism and related businesses.

Every butterfly and moth has developed its own suite of chemicals to deter predators and parasites, find a mate, and overcome the chemical defences of its host plant. Each of these chemicals has a potential value and could be exploited economically.

Conservation of butterflies

In India, study and research on butterflies is still at the basic level. We are still working mostly on the diversity inventories of various places. There are some good research papers coming out on other aspects of Lepidoptera.

We have few names for butterflies in regional languages, but people do not have detailed information about butterflies. People's awareness regarding butterflies and their conservation is almost next to nothing. It is for this reason butterflies are given little importance in the issues of wildlife conservation.

Only recently, in June 2015, Maharashtra declared Blue Mormon *Papilio polymnestor* as the 'State Butterfly'. In August 2016, Karnataka followed suit by declaring Southern Birdwing *Troides minos* as its 'State Butterfly' recognizing the importance of the butterflies in nature.

Now a good amount of academic research on butterflies is taking place in India but we do not have good bibliographies on published information or baseline data on butterflies. For many of our protected areas we have inventories for several other biological groups (mammals, birds, reptiles, trees etc.), most of our parks and sanctuaries do not even have butterfly lists.

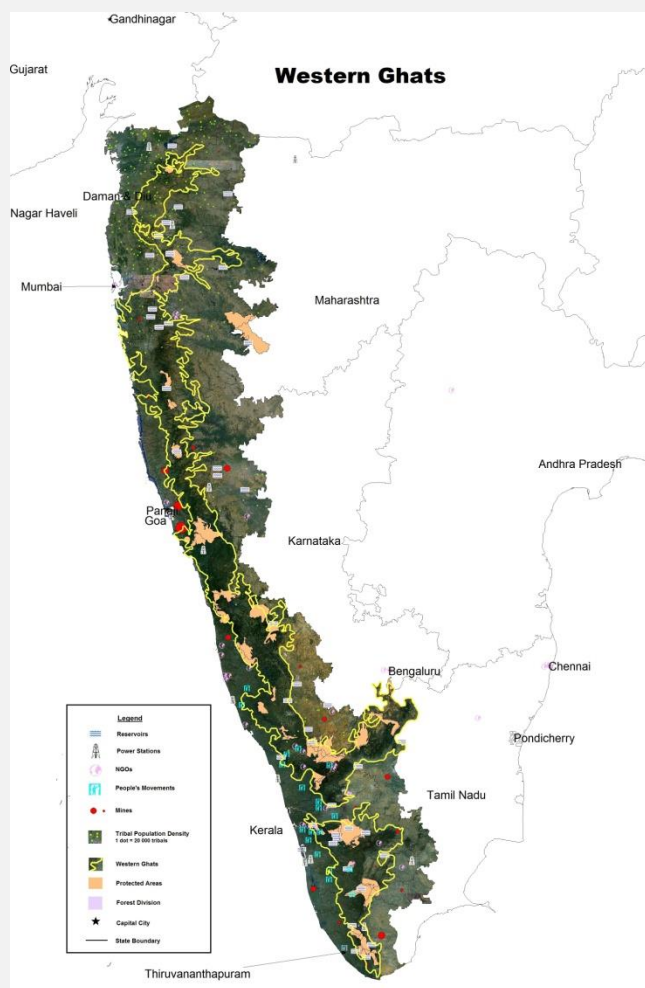
Moreover, very few serious ecological studies on the Lepidoptera of the region have been undertaken and thus very little technical information is available for managers and policy makers to take steps for effective butterfly conservation.

Habitats have been and are being destroyed on a massive scale. Now with the looming threat of climate change and increasing pollution of the atmosphere may result into the disappearance or drastic decline in the numbers of butterflies in many areas.

Conserving butterflies will improve our whole environment for wildlife and enrich the lives of people now and in the future.

Western Ghats – Hotspot of Biodiversity

The Western Ghats or Sahyadri runs north to south along the western edge of the Deccan Plateau of India, and separates the plateau from a narrow coastal plain along the Arabian Sea. The range starts near the border of Gujarat and Maharashtra, south of the Tapti River, and runs approximately 1600 km through the states of Maharashtra, Goa, Karnataka, Tamil Nadu and Kerala ending at Kanyakumari. These hills cover 160,000 km² (roughly 6% of India's total geographical area) and form the catchment area for complex riverine drainage systems that drain almost 40% of India. The average elevation is around 1200-1300 metres. Western Ghats are home to 30% of flora and fauna species found in India.



Older than the Himalaya mountains, the mountain chain of the Western Ghats represents geomorphic features of immense importance with unique biophysical and ecological processes. The site is recognized as one of the world's eight 'hottest hotspots' of biological diversity by UNESCO.

Western Ghats are spread in six states viz. Gujarat, Maharashtra, Goa, Karnataka, Tamil Nadu, Kerala and two Union Territories viz. Dadra & Nagar Haveli and Pondicherry. The range starts near the border of Gujarat south of Tapti river where foothills of the ranges are occupying the eastern portion of Dadra and Silvassa in D&N. Running around 1600 kilometers down south, it ends at its southern part at Anamudi peak in

Kerala. The mountain stretch is interrupted only by the 30 km Palghat Gap at around 11°N. Mahe in Pondicherry is situated on the Malabar coast on the Western Ghats surrounded by Kerala Mountains.

In northern Maharashtra Western Ghats are known as *Sahyadri*, in Kerala as *Sahya Parvatam* and in Tamil Nadu as *Nilagiri Malai*.

Western Ghats are home to many hill stations like Matheran, Lonavala-Khandala, Mahabaleshwar, Panchgani, Amboli Ghat, Kudremukh and Kodagu. The extreme northern parts of Western Ghats falls in the Dangs district of Gujarat, known for Dang (Bamboo) forests. The confluence of the Eastern and the Western Ghats is at Biligirirangan Hills in Karnataka. Anamudi at 2,695 metres in Kerala is the highest peak in Western Ghats. Mullayanagiri is the highest peak in Karnataka at 1,950 meters.

The smaller ranges of the Western Ghats include the Cardamom Hills and the Nilgiri Hills. Cardamom hills are located in southeast Kerala and southwest Tamil Nadu. They conjoin the Anaimalai Hills to the northwest, the Palni Hills to the northeast and the Agasthyamalai Hills to the south as far as the Ariankavu pass. The crest of the hills forms the boundary between Kerala and Tamil Nadu. Anamudi is also located in Cardamom Hills. The Nilgiri Hills are home to the hill station Ooty. There are many important passes in Western Ghats such as Tamhini Ghat, Palakkad Gap, Naneghat, Kasara Ghat etc.

The northern portion of the narrow coastal plain between the Western Ghats and the Arabian Sea is known as the Konkan Coast, the central portion is called Kanara and the southern portion is called Malabar region or the Malabar Coast. The foothill region east of the Ghats in Maharashtra is known as Desh, while the eastern foothills of central Karnataka state is known as Malenadu.

A significant characteristic of the Western Ghats is the exceptionally high level of biological diversity and endemism. This mountain chain is recognized as one of the world's eight 'hottest hotspots' of biological diversity along with Sri Lanka. The forests of the Western Ghats include some of the best representatives of non equatorial tropical evergreen forests in the world. At least 325 globally threatened (IUCN Red Data List) species occur in the Western Ghats. The globally threatened flora and fauna in the Western Ghats are represented by 229 plant species, 31

mammal species, 15 bird species (now 26), 43 amphibian species, 5 reptile species and 1 fish species. Of the total 325 globally threatened species in the Western Ghats, 129 are classified as Vulnerable, 145 as Endangered and 51 as Critically Endangered (Source: <http://whc.unesco.org/en/list/1342>).

Rivers

The rivers that originate in Western Ghats and flow towards west are Periyar, Bharathappuzha, Netravati, Sharavathi, Mandovi etc. The west flowing rivers of Western Ghats are fast-moving, owing to the short distance travelled and steeper gradient. The steep gradient makes the Jog Falls on Sharavathi River in Karnataka as one of the most spectacular waterfalls in India. The rivers that originate in Western Ghats and flow towards east include three major rivers viz. Godavari, Krishna and Kaveri, and many smaller tributary rivers such as Tunga, Bhadra, Bhima, Malaprabha, Ghataprabha, Hemavathi, Kabini. These east flowing rivers are comparatively slower moving and eventually merge into larger rivers such as the Kaveri and Krishna.

Climate

Climate In comparison to the eastern side, the western side of the Western Ghats is area of high rainfall because the mountains intercept the rain-bearing westerly monsoon winds. The dense montane forests also contribute to high precipitation. The climate is humid and tropical in the lower reaches tempered by the proximity to the sea. Elevations of 1,500 m and above in the north and 2,000 m and above in the south have a more temperate climate.

Average annual temperature here is around 15 °C. In some parts frost is common, and temperatures touch the freezing point during the winter months. Mean temperature range from 20 °C in the south to 24 °C in the north. It has also been observed that the coldest periods in the south Western Ghats coincide with the wettest. During the monsoon season between June and September, the unbroken Western Ghats chain acts as a barrier to the moisture laden clouds. The heavy, eastward-moving rain-bearing clouds are forced to rise and in the process deposit most of their rain on the windward side. Rainfall in this region averages 3,000–4,000 mm. The eastern region of the Western Ghats which lie in the rain shadow, receive far less rainfall averaging about 1,000 mm bringing the average rainfall figure to 2,500 mm.

Vegetation

Due to a sharp contrast in precipitation between western and eastern slopes of the Western Ghats, there is a clear difference between the vegetation of the two sides. Similarly, there is also a clear contrast between the northern and southern Western Ghats. Moreover, the vegetation found on the high hills is also different from the low hills. Thus, there are various kinds of vegetations found in Western Ghats as follows: The western slopes have tropical and subtropical moist broadleaf forests marked predominantly by Rosewood, Mahogany, Cedar *etc.* These slopes appear green in almost all parts of the year. No time is fixed when these trees would shed their leaves. The eastern slopes of the Western Ghats have dry as well as moist deciduous forests marked predominantly by Teak, Sal, Shisham, Sandalwood *etc.* trees. Further, on the northern side of the Wayanad forests; we find dry deciduous forests while on the southern side there are wet deciduous forests. The evergreen Wayanad forests of Kerala mark the transition zone between the northern and southern ecoregions of the Western Ghats.

The southern ecoregions are generally wetter and more species-rich. South Western Ghats Montane rain forests are the most species-rich ecoregions in peninsular India. Eighty percent of the flowering plant species of the entire Western Ghats range are found in this ecoregion. The areas which are high in elevation are cooler and wetter in the north and so the forests there are called North Western Ghats Montane rain forests. The vegetation here is evergreen characterized by trees of family Lauraceae. Such plants include *Litsea glutinosa* or *Maida lakri* in Hindi (a plant of medicinal value), *Cinnamomum* sp. *etc.* There are montane grasslands as well as stunted forests also in the Western Ghats. The forest in the Western Ghats has been severely affected due to human activities, especially clear felling for tea, coffee, and teak plantations during 1860 to 1950.

Species that are rare, endemic and habitat specialists are more adversely affected and tend to be lost faster than other species. Complex and species rich habitats like the tropical rainforest are much more adversely affected than other habitats. The area is ecologically sensitive to development. Though this area covers barely five percent of India's land, 27% of all species of higher plants in India (4,000 of 15,000 species) are found here. Almost 1,800 of these are endemic to the region.

Protected Areas

Western Ghats is home to India's two biosphere reserves, 13 National parks, several wildlife sanctuaries, Important Bird Areas (IBAs) and many Reserve Forests. The Nilgiri Biosphere Reserve comprising 5500 km² of the evergreen forests of Nagarahole, deciduous forests of Bandipur National Park and Nugu in Karnataka and adjoining regions of Wayanad and Mudumalai National Park in the states of Kerala and Tamil Nadu forms the largest contiguous protected area in the Western Ghats. The Silent Valley National Park in Kerala is among the last tracts of virgin tropical evergreen forests in India.

Fauna

There are two biodiversity hotspots in our country viz. Eastern Himalayas and Western Ghats. Western Ghats are home to over 5000 species of flowering plants, 139 mammal species, 508 bird species and 179 amphibian species, many undiscovered species lives.

Mammals

There are at least 139 mammal species. Of the 16 endemic mammals found in Western Ghats, 13 are threatened. Following four are important species endemic to Western Ghats. Malabar Large-spotted Civet or just Malabar Civet *Viverra civettina* (Critically Endangered), Lion-tailed Macaque *Macaca silenus* (Endangered), Brown Palm Civet *Paradoxurus jerdoni* (Least Concerned) and Nilgiri Tahr *Nilgiritragus hylocrius* (Endangered).

Birds

There are more than 500 bird species reported from Western Ghats. There are at least 26 species of birds endemic to the Western Ghats including the Nilgiri Imperial-pigeon *Ducula cuprea*, Nilgiri Woodpigeon *Columba elphinstonii*, Grey-fronted Green-pigeon *Treron affinis*, Malabar Parakeet (Syn. Blue-winged Parakeet) *Psittacula columboides*, Malabar Grey Hornbill *Ocyrceros griseus*, Malabar Barbet (Syn. Crimson-fronted Barbet) *Xantholaema malabarica*, Nilgiri Pipit *Anthus nilghiriensis*, Malabar Woodshrike *Tephrodornis sylvicola*, Flame-throated Bulbul (Ruby-throated Yellow Bulbul) *Pycnonotus gularis* (Syn. *Rubigula gularis*), Grey-headed Bulbul *Pycnonotus priocephalus*, Nilgiri Thrush *Zoothera*

neilgherriensis, White-bellied Blue Robin *Myiomela albiventris*, Nilgiri Blue Robin *Myiomela major*, Black-and-Orange Flycatcher (Syn. Black-and-rufous Flycatcher) *Ficedula nigrorufa*, Nilgiri Flycatcher *Eumyias albicaudatus*, White-bellied Blue-Flycatcher *Cyornis pallipes*, Wynaad Laughingthrush *Dryonastes (Garrulax) delesserti*, Black-chinned Laughingthrush *Strophocincla cachinnans*, Kerala Laughingthrush *Strophocincla fairbanki*, Indian Rufous Babbler *Turdoides subrufa*, Indian Broad-tailed Grass-warbler *Schoenicola platyururs*, Plain (Nilgiri) Flowerpecker *Dicaeum concolor*, Small Sunbird (Crimson-backed Sunbird) *Leptocoma minima* (Syn. *Nectarinia minima*), Vigor's Sunbird *Aethopyga vigorsii*, Malabar White-headed Starling *Sturnia blythii*, White-bellied Treepie *Dendrocitta leucogastra*.

Amphibians

Western Ghats is home to at least 179 amphibian species as many more are being described and more than 80% of these are endemic to the rainforests of the mountains. The region is also home to many endemic caecilian species.

Fish

As of 2004, 288 freshwater fish species are listed from the Western Ghats, including 35 which are also known from brackish or marine water. Several new species have been described from the region since then.

Insects

Western Ghats is home to roughly 6,000 insect species. This includes 334 species of butterflies. The Western Ghats is home to 174 species of odonates (107 dragonflies and 67 damselflies), including 69 endemics. Most of the endemic odonates are closely associated with rivers and streams, while the non-endemics typically are generalists. There are several species of leeches found all along the Western Ghats.

Flora

Of the 7,402 species of flowering plants occurring in the Western Ghats, 5,588 species are native or indigenous and 376 are exotics naturalised and 1,438 species are cultivated or planted as ornamentals. Among the indigenous species, 2,253 species are endemic to India and of them, 1,273 species are exclusively confined to the Western Ghats.

UNESCO World Heritage Site

In 2006, India applied to the UNESCO for the Western Ghats to be listed as a protected World Heritage Site. In 2012, the following places were declared as World Heritage Sites: Kalakkad Mundanthurai Tiger Reserve, Shendurney Wildlife Sanctuary, Neyyar Wildlife Sanctuary, Peppara Wildlife Sanctuary, Periyar Tiger Reserve, Srivilliputtur Wildlife Sanctuary, Eravikulam National Park, Grass Hills National Park, Karian Shola National Park, Sathyamangalam Wildlife Sanctuary, Chinnar Wildlife Sanctuary, Silent Valley National Park, New Amarambalam Reserved Forest, Mukurthi National Park, Pushpagiri Wildlife Sanctuary, Brahmagiri Wildlife Sanctuary, Talakaveri Wildlife Sanctuary, Aralam Wildlife Sanctuary, Kudremukh National Park, Someshwara Wildlife Sanctuary, Kaas Plateau, Koyna Wildlife Sanctuary, Chandoli National Park and Radhanagari Wildlife Sanctuary.

Sources:

<http://www.gktoday.in/western-ghats/>

<http://whc.unesco.org/en/list/1342>

https://en.wikipedia.org/wiki/Western_Ghats

Map: <https://i2.wp.com/www.insightsonindia.com/wp-content/uploads/2012/07/western-ghats-detailed-map.jpg>

Family Facts

HesperIIDae: The Skippers

Butterflies belonging to the family HesperIIDae are known as the “skippers” because the butterflies exhibit a rapid, erratic or "skipping" flight pattern. The Skippers are not considered to be "true" butterflies, but are more closely related to the true butterflies than are the moths.

These butterflies are generally characterized by the following: 1) a large, hairy body; 2) a large head, at least as wide or wider than the thorax; 3) fully developed and functioning forelegs in both sexes; 4) small, pointed wings; 5) unique pattern of venation on the forewing; and 6) curved or hooked antennae tips. Males of many species possess a patch of scent scales on the forewing, called a stigma, useful in attracting females. Males may also have a folded portion of the forewing on the leading edge, called a costal fold, which encloses scent scales.

Many species of Skippers has a habit of basking in the sunlight with a unique posture, the forewings being open only half way and the hindwings open fully. This gives them a "fighter-jet" like appearance. They are largely brown, orange and tawny.

Many species have very long proboscis which makes it possible for them to get nectar from flowers with long tubular corolla. Many fly at dawn or dusk but others fly during the daytime.

Eggs are tiny (less than the width of the head of a pin!) and vary in appearance, but often are dome-shaped. Caterpillars generally are green with tapered bodies, often live in shelters constructed with leaves and silk. Pupae hang in loose cocoons and may have a silk girdle.

Brown Awl *Badamia exclamations* (Fabricius, 1775)

Image: UN by Raju Kasambe

Wing span: 50–55 mm.

Larval Host Plants:

Anogeissus acuminata, *Combretum albidum*, *C. latifolium*, *C. ovalifolium*, *Terminalia bellirica* (Combretaceae), *Hiptage benghalensis* (Malpighiaceae), *Ficus* spp. (Moraceae), *Chionanthus purpureus* (Oleaceae).

Distribution:

Throughout India.

Orange Awlet *Bibasis jaina* (Moore, 1865)
(Syn. *Burara jaina*)



Images: UN and UP by Raju Kasambe

Wing span: 60–70 mm.

Larval Host Plants:

Combretum latifolium (Combretaceae), *Hiptage benghalensis* (Malpighiaceae).

Distribution: Subspecies:

B. j. fergusonii de Niceville, [1894]: Western Ghats: Maharashtra to Kerala.

Pale Green Awlet *Burara gomata* (Moore, [1866])

(Syn. *Bibasis gomata* Moore, 1866)



Image: UN by Anila Manalil

Wing span: 50–65 mm

Larval Host Plants:

Schefflera venulosa, *S. wallichiana*, *S. lucidum*, *Trevesia sundaica* (Araliaceae), *Horsfieldia* sp. (Myristicaceae), *Embelia ribes*, *Ribesiodes garciniaefolium* (Primulaceae).

Distribution: Subspecies:

B. g. kanara (Evans, 1926): Western Ghats: Goa, Tamil Nadu and Kerala.

Orange-tail Awl *Bibasis sena* (Moore, 1865)

Image: UN by Firos A.K.

Wing span: 42–50 mm.

Larval Host Plants:

Combretum latifolium (Combretaceae), *Hiptage benghalensis* (Malpighiaceae).

Distribution: Subspecies:

B. s. sena (Moore, [1866]): Western Ghats: Maharashtra southwards to Kerala; east to Madhya Pradesh and Himachal Pradesh to N.E. India; Andaman & Nicobar Is.

Indian Awlking *Choaspes benjaminii* (Guérin-Meneville, 1843)

Image: UN by S. Karthikeyan

Wing span: 50–60 mm.

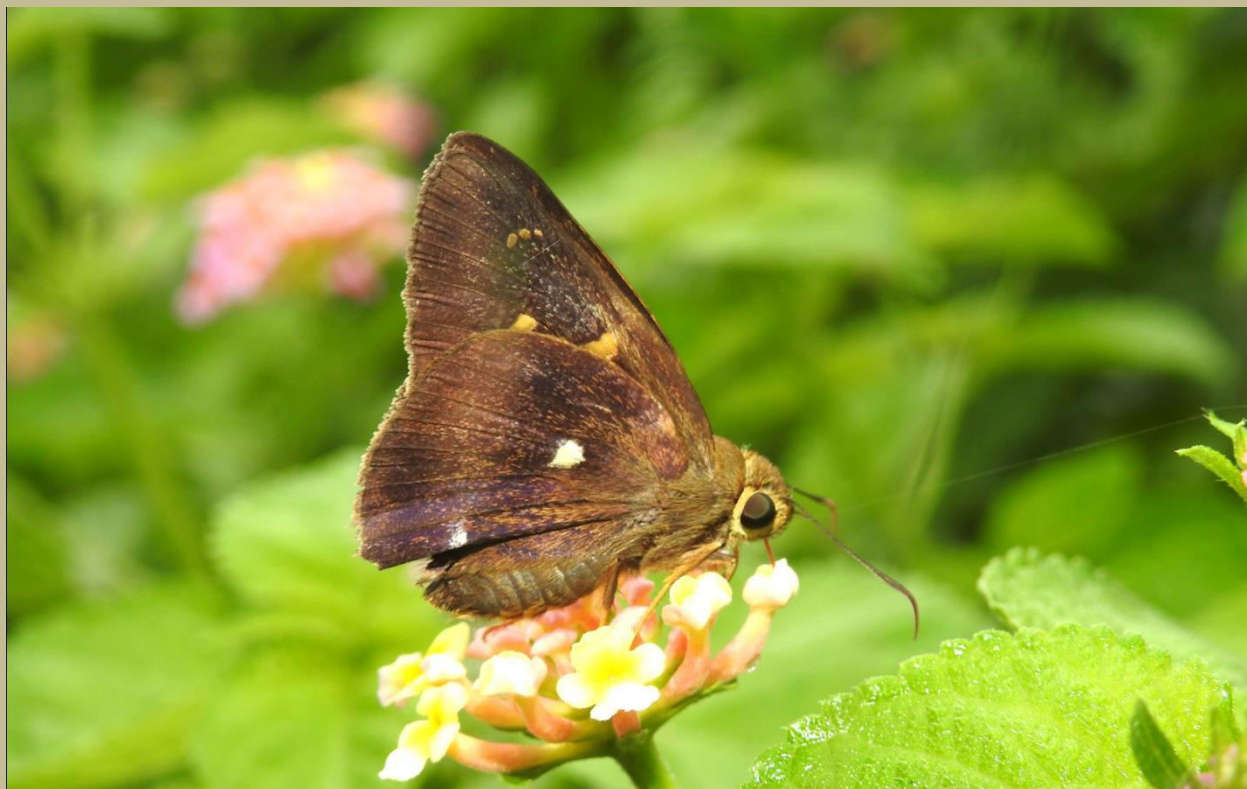
Larval Host Plants:

Meliosma arnottiana, *M. pinnata*, *M. simplicifolia* (Meliosmaceae), *Sabia campanulata* (Sabiaceae).

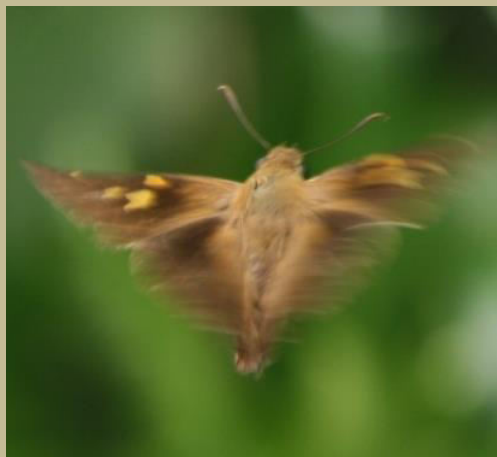
Distribution: Subspecies:

C. b. benjaminii (Guerin-Meneville, 1843): Western Ghats: Karnataka, Tamil Nadu and Kerala.

Common Awl *Hasora badra* (Moore, 1857)



Images: UN and UP (below) by Raju Kasambe



Wing span: 50–55 mm.

Larval Host Plants:

Derris trifoliata, *D. elliptica* (Fabaceae),
Pongamia spp. (Fabaceae).

Distribution:

H. b. badra (Moore, [1858]): Western Ghats:
Maharashtra to Kerala; North Bihar to N.E. India; Andaman & Nicobar Is.

Common Banded Awl *Hasora chromus* (Cramer, 1780)

Images: UN by Raju Kasambe and UP by Amirtha Balan

Wing span: 45–50 mm.

Larval Host Plants: *Ricinus communis* (Euphorbiaceae), *Derris scandens*, *Pongamia pinnata* (Fabaceae), *Trichilia connaroides*, *Heynea trijuga* (Meliaceae), *Toddalia asiatica* (Rutaceae).

Distribution:

H. c. chromus (Cramer, [1780]): Throughout India and Andaman & Nicobar Islands.

White Banded Awl *Hasora taminatus* (Hübner, 1818)

Image: UN by Tarun Karmakar

Wing span: 45–55 mm.

Larval Host Plants:

Derris scandens, *Pongamia pinnata* (Fabaceae).

Distribution: Subspecies:

H. t. taminatus (Huebner, 1818): Western Ghats: Southern Maharashtra (Amboli), Karnataka, Tamil Nadu to Kerala.

Plain Banded Awl *Hasora vitta* (Butler, 1870)

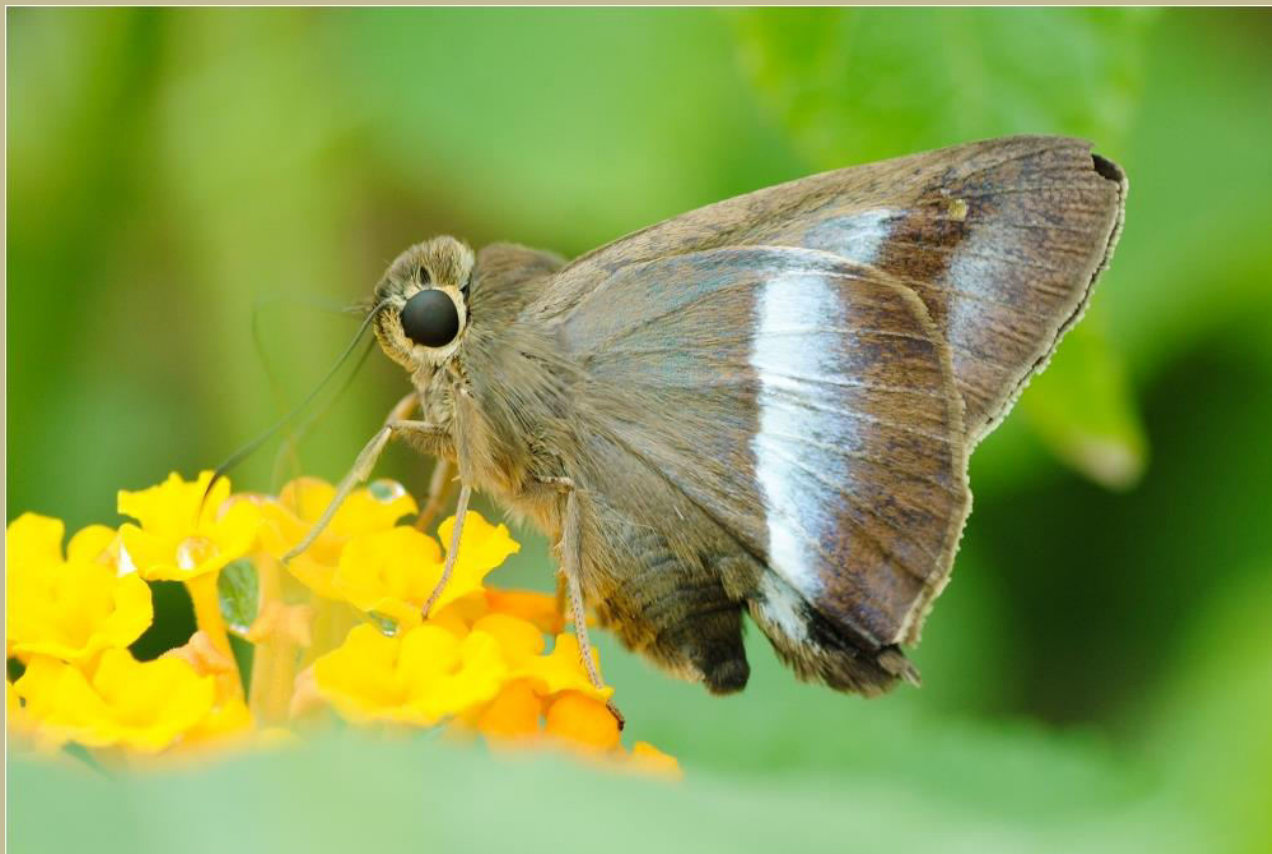


Image: UN by Dattaprasad Sawant

Wing span: 45–55 mm.

Larval Host Plants:

Millettia extensa, *M. pallida*, *Endosamara racemosa*, *Pongamia pinnata* (Fabaceae).

Distribution: Subspecies:

H. v. indica Evans, 1932: Western Ghats: Maharashtra southwards to Kerala; Sikkim to N.E. India.

Pygmy Scrub Hopper *Aeromachus pygmaeus* (Fabricius, 1775)



Image: UN by Anila Manalil

Wing span: 20–22 mm.

Larval Host Plants:

Grass spp., *Cyrtococcum trigonum*, *Stenotaphrum secundatum*, *Polytrias indica* (Poaceae).

Distribution:

Western Ghats: Southern Maharashtra (Amboli) to Kerala; N.E. India.

Dingy Scrub Hopper *Aeromachus dubius* Elwes & Edwards, 1897



Images: UN and UP by Firos A.K.

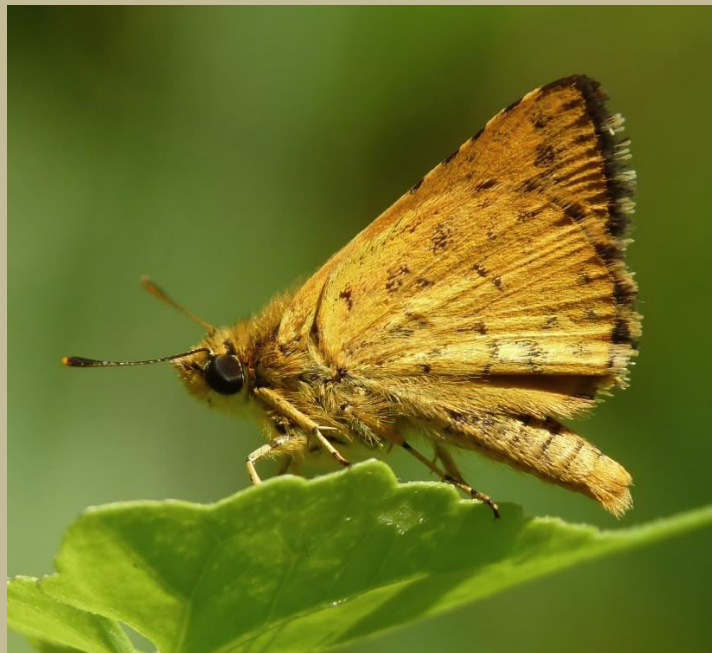
Wing span: 22–28 mm.

Larval Host Plants:

Grass spp. *Cyrtococcum trigonum* (Poaceae).

Distribution: Subspecies:

A. d. dubius Elwes & Edwards, 1897: Western Ghats: Karnataka, Tamil Nadu and Kerala.

Bush Hopper *Ampittia dioscorides* (Fabricius, 1793)

Images clockwise from top left: UN by Jeevan Jose, Male UP by Raju Kasambe, Female UP by Raju Kasambe

Wing span: 22–28 mm.

Larval Host Plants:

Grass spp., *Leersia hexandra*,
Oryza, Rice *Oryza sativa* (Poaceae).

Distribution:

A. d. dioscorides (Fabricius, 1793): Western Ghats: Southern Maharashtra southwards to Kerala; eastwards to West Bengal; Himachal Pradesh to N.E. India.

Coorg Forest Hopper *Arnetta mercara* Evans, 1932
(Syn. Coorg Forest Bob)



Image: UN by Pranav Gokhale



Image: UP by Vinayaraj

Wing span: 32 mm.

Larval Host Plants:

Imperata cylindrica.

Distribution:

Western Ghats: Karnataka, Tamil Nadu and Kerala.

Endemicity:

Endemic to Western Ghats.

Bicolour Ace *Sovia hyrtacus* (de Niceville, 1897)

Image: V.K. Chandrasekharan

Wing span: 36 mm.

Larval Host Plants:

Poaceae, *Bambusa* spp., *Ochlandra scriptoria*, *O. talbotii*, *O. travancorica* (Poaceae).

Distribution:

Western Ghats: Goa to Kerala. Recent records only from Karnataka and Kerala.

Endemicity:

Endemic to Western Ghats.

Southern Spotted Ace *Thoressa astigmata* (Swinhoe, 1890)



Image: UN by V.K. Chandrasekharan



Image: UP by Santosh Hatti

Wing span: 39 mm.

Larval Host Plants:

Ochlandra talbotii, *O. travancorica* (Poaceae).

Distribution:

Western Ghats: Karnataka, Kerala, Tamil Nadu.

Endemicity:

Endemic to Western Ghats.

Vindhyan Bob *Arnetta vindhiana* (Moore, 1883)

Images: WSF UN and DSF UN by Raju Kasambe

Wing span: 25–32 mm.

Larval Host Plants:

Grass spp. (Poaceae).

Distribution: Subspecies:

A. v. nilgiriana (Moore, 1883): Tamil Nadu to Kerala. This subspecies is endemic to Western Ghats.

Subspecies:

A. v. vindhiana (Moore, 1883): Rajasthan to Tamil Nadu; Madhya Pradesh.

Paintbrush Swift *Baoris farri* (Moore, 1878)

Image: UN by Gopakumar V.R.



Image: UP by Balakrishnan Valappil

Wing span: 43–48 mm.

Larval Host Plants:

Bambusa, *B. bambos*, *B. tuldoidea*, *B. vulgaris*, *Ochlandra scriptoria*, *O. talbotii*, *O. travancorica* (Poaceae).

Distribution: Subspecies:

B. f. farri (Moore, 1878): Western Ghats: Maharashtra southwards to Kerala and eastwards to W. Bengal; Uttarakhand to N.E. India.

Blank Swift *Caltoris kumara kumara* (Moore, 1878)

Image: UP by Charlesjsharp



Image: UN by Raju Kasambe

Wing span: 42–46 mm.

Larval Host Plants:

Bambusa spp., *B. vulgaris*, *B. tuldoidea*, *Imperata cylindrica*, *Ochlandra scriptoria*, *O. travancorica*, *Oryza sativa* (Poaceae).

Distribution: Subspecies:

Caltoris kumara kumara: Western Ghats: Gujarat southwards to Kerala and eastwards to Chhattisgarh.

Kanara Swift *Caltoris canaraica* (Moore, [1884])



Image: UN by Uajith

Wing span: 43–48 mm.

Larval Host Plants:

Bamboo *Bambusa* spp., *Bambusa bambos*, *B. vulgaris*, *Pseudoxytenanthera monadelpha* (Poaceae).

Distribution:

Western Ghats: Karnataka, Tamil Nadu and Kerala.

Endemicity:

Endemic to Western Ghats.

Oriental Straight Swift *Parnara bada* (Moore, 1878)

(Syn. Ceylon Swift)



Images: UN and UP by Jeevan Jose

Wing span: 32–38 mm.

Larval Host Plants:

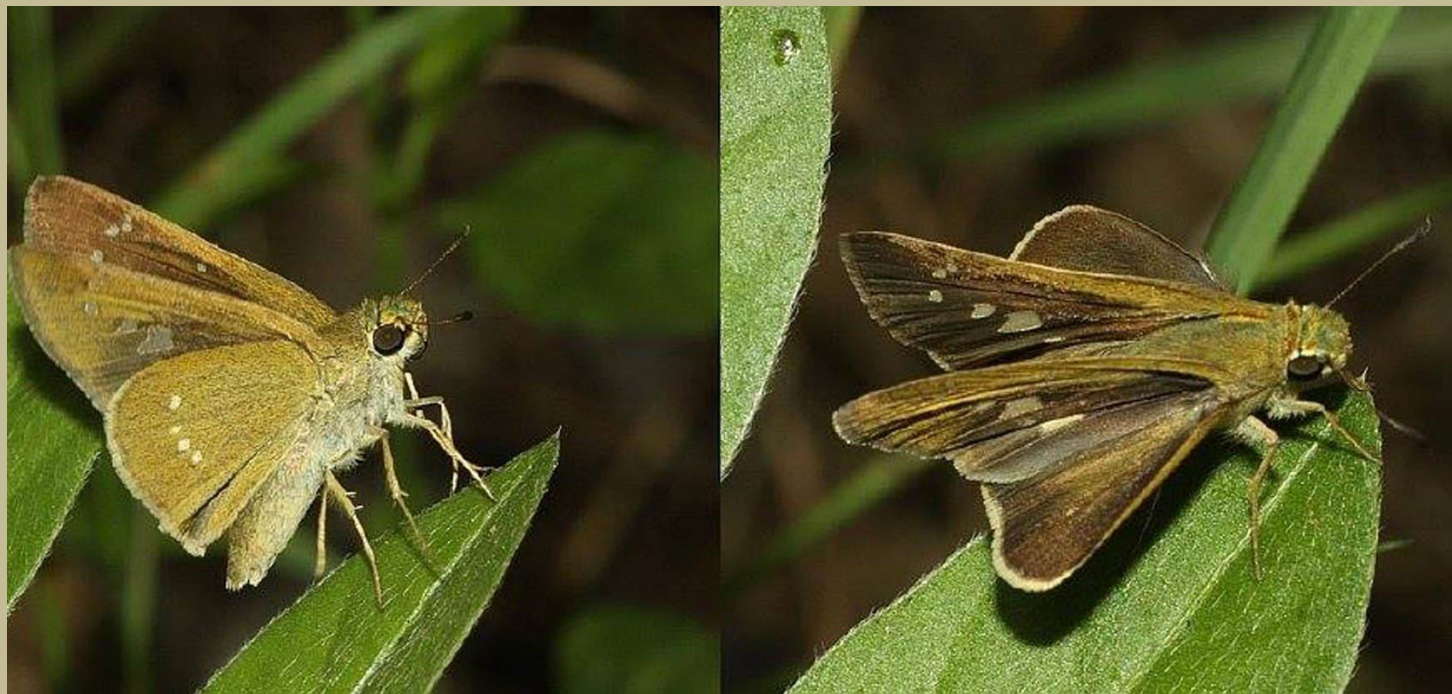
Brachiaria mutica, *Oryza sativa* (Poaceae).

Distribution:

Western Ghats: Karnataka, Kerala.

Bevan's Swift *Borbo bevani* (Moore, 1878)

(Syn. *Pseudoborbo bevani*)



Images: UN and UP by Blaise Pareira

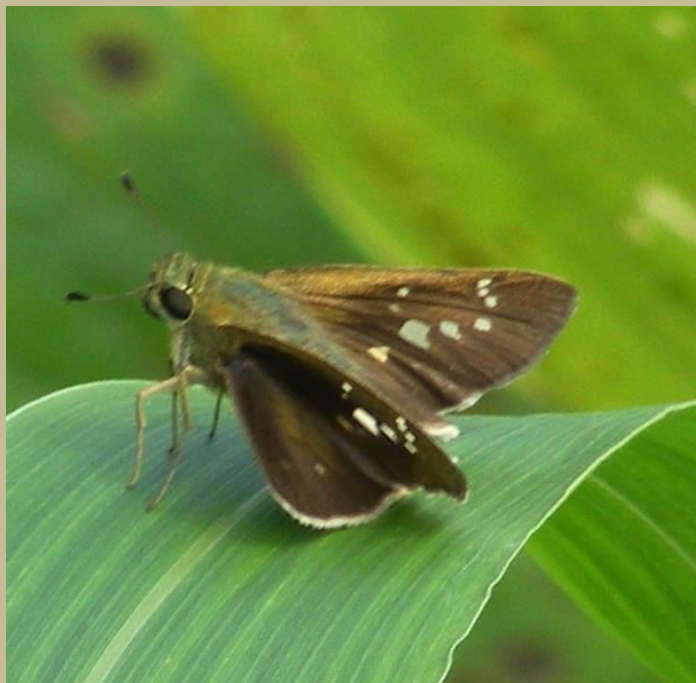
Wing span: 32–36 mm.

Larval Host Plants:

Imperata cylindrica, *Paspalum conjugatum*, *Saccharum* spp. (Poaceae).

Distribution:

Western Ghats: Gujarat southwards to Kerala and east to West Bengal; Jammu & Kashmir to N.E. India.

Rice Swift *Borbo cinnara* (Wallace, 1866)

Images: UN and UP by Raju Kasambe

Wing span: 30–36 mm.

Larval Host Plants:

Grass spp. (Poaceae), *Andropogon* spp., *Arundo donax*, *Axonopus compressus*, *Brachiaria mutica*, *Cymbopogon* sp., *Eragrostis* sp., *Ischaemum* sp., *Oryza* sp., *Oryza sativa*, *Pennisetum* sp., *Phragmites karka*, *Rottboellia cochinchinensis*, *Setaria barbata*, *Setaria pumila*, *Stenotaphrum dimidiatum*, *Stenotaphrum secundatum* (Poaceae).

Distribution:

Throughout India except Jammu & Kashmir.

Little Branded Swift *Pelopidas agna* (Moore, [1866])

(Syn. Obscure Branded Swift)



Images: UN and UP by Raju Kasambe

Wing span: 32–38 mm.

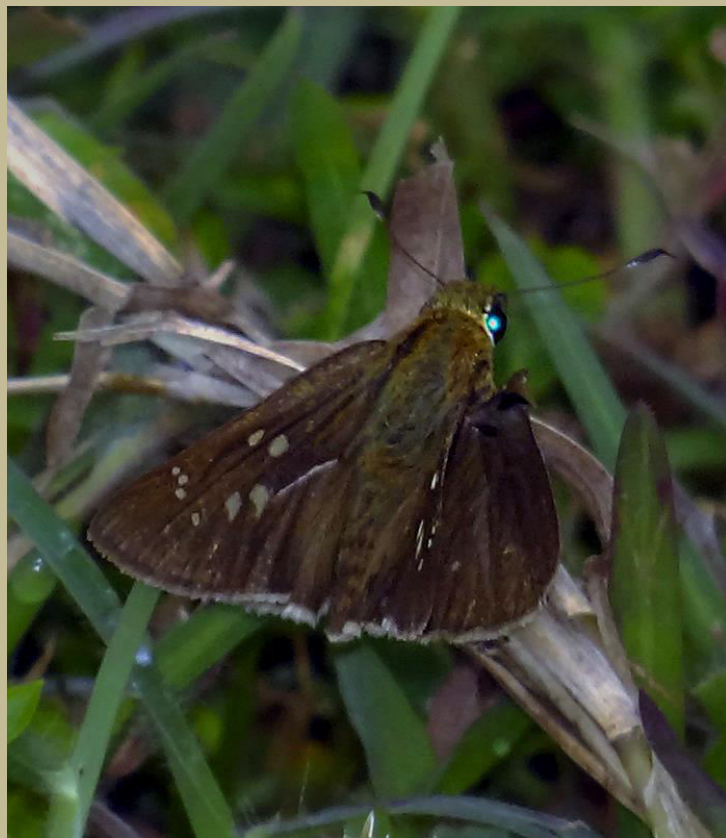
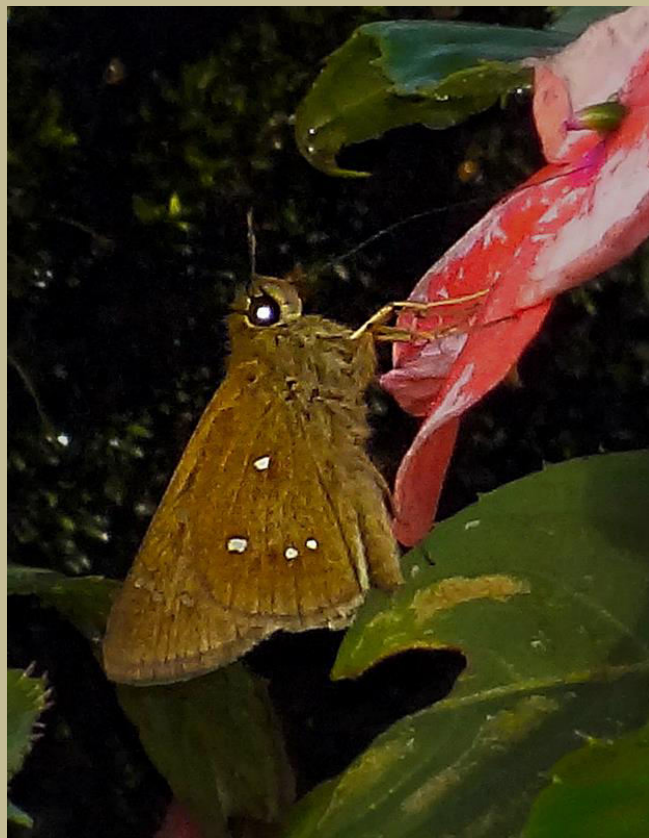
Larval Host Plants:

Grass spp., *Axonopus compressus* (Poaceae).

Distribution:

Western Ghats: Kerala southwards to Gujarat and east to West Bengal. Andaman & Nicobar Islands; Jammu & Kashmir;

Large Branded Swift *Pelopidas subochracea* (Moore, 1878)
(Syn. Moore's Swift)



Images: UN and UP by Sagar Sarang

Wing span: 28–33 mm.

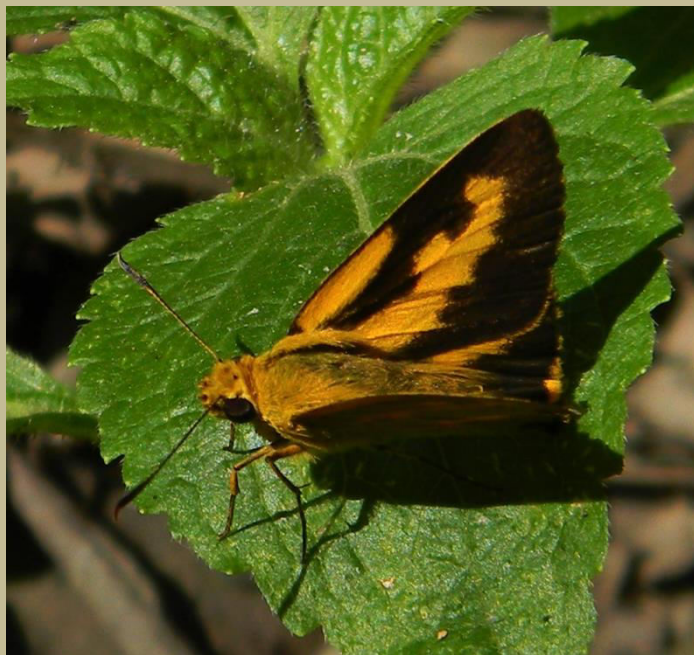
Larval Host Plants:

Poaceae, *Axonopus compressus* (Poaceae).

Distribution: Subspecies: *P. s .subochracea* (Moore, 1878):

Western Ghats: Maharashtra southwards to Kerala; Jharkhand to West Bengal;
Sikkim to Arunachal Pradesh and N.E. India.

Wax Dart *Cupitha purreea* (Moore, 1877)



Images: UN and UP by Subhajit Mazumder

Wing span: 28–33 mm.

Larval Host Plants:

Ehretia laevis, *E. bellirica* (Boraginaceae), *Combretum albidum*, *C. ovalifolium*, *C. indicum*, *Terminalia bellirica*, *T. paniculata* (Combretaceae).

Distribution:

Western Ghats: Maharashtra to Kerala; Jharkhand; Sikkim to N.E. India.

Indian Ace *Halpe hindu* Evans, 1937



Image: UN by Kishen Das



Image: UP by Hemant Ogale

Wing span: 30–36 mm.

Larval Host Plants:

Bamboo *Bambusa* spp., *Ochlandra scriptoria* (Poaceae).

Distribution: Subspecies:

H. h. hindu Evans, 1937: Western Ghats: Maharashtra, Karnataka, Tamil Nadu, Kerala.

Moore's Ace *Halpe porus* (Mabille, 1877)



Images: UN and UP by Yuwaraj Gurjar

Wing span: 32 mm.

Larval Host Plants:

Bamboo *Bambusa* spp., *B. tuldoidea*, *B. vulgaris*, *Ochlandra scriptoria* (Poaceae).

Distribution:

Western Ghats: Maharashtra southwards to Kerala and east to West Bengal;
Uttarakhand to N.E. India; Andaman & Nicobar Is.

Sitala Ace *Thoressa sitala* (de Nicéville, 1885)

(Syn. Tamil Ace)



Images: UN and UP by Balakrishnan Valappil

Wing span: 37 mm.

Larval Host Plants:

Bambusa spp.

Distribution:

Western Ghats: Karnataka, Tamil Nadu and Kerala.

Endemicity:

Endemic to Western Ghats.

Evershed's Ace *Thoressa evershedii* (Evans, 1910)



Image: UN by Sharan V.

Wing span: 37 mm.

Larval Host Plants:

Ochlandra scriptoria, *O. travancorica* (Poaceae).

Distribution:

Western Ghats: Tamil Nadu and Kerala.

Endemicity:

Endemic to Western Ghats.

Chestnut Bob *Iambrix salsala* (Moore, 1865)

Images: UN and UP by Raju Kasambe

Wing span: 26–30 mm.

Larval Host Plants:

Bamboo and grass spp., *Bambusa bambos*, *B. wamin*, *Axonopus compressus*, *Brachiaria mutica*, *Setaria barbata* (Poaceae).

Distribution: Subspecies:

I. s. luteipalpis (Ploetz, 1886). Western Ghats: Gujarat to Kerala.

Banana Redeye *Erionota torus* Evans, 1941

(Syn. Banana Skipper)



Image: UN by Firos A.K.

Wing span: 40–55 mm.

Larval Host Plants:

Banana *Musa x paradisiaca* (Musaceae), *Cocos nucifera* (Arecaceae).

Distribution: Western Ghats: Southern Maharashtra, Karnataka, Tamil Nadu, Kerala; Uttarakhand to N.E. India.

Common Redeye *Matapa aria* (Moore, 1866)

Image: UN by Raju Kasambe

Wing span: 40–55 mm.

Larval Host Plants:

Bamboo *Bambusa* spp., *B. bambos*, *B. vulgaris*, *Dendrocalamus strictus*, *Ochlandra scriptoria*, *O. talbotii*, *O. travancorica*, *Oxytenanthera* sp., *Teinostachyum* sp. (Poaceae).

Distribution:

Western Ghats: Gujarat southwards to Kerala and east to West Bengal; Delhi; Uttarakhand to N.E India.

Giant Redeye *Gangara thyrsis* (Fabricius, 1775)

Image: UN by Raju Kasambe

Wing span: 70–76 mm.

Larval Host Plants:

Palms and canes. *Borassus flabellifer*, *Calamus* sp., *Calamus pseudofeanus*, *Calamus rotang*, *Calamus thwaitesii*, *Caryota urens*, *Chamaerops humilis*, *Cocos nucifera*, *Corypha umbraculifera*, *Licuala grandis*, *Phoenix acaulis*, *Phoenix loureiroi*, *Licuala chinensis* (Arecaceae). *Cyperus alternifolius* (Cyperaceae).

Distribution:

G. t. thyrsis (Fabricius, 1775): Western Ghats: Maharashtra southwards to Kerala; Andhra Pradesh; to N.E. India, Himachal Pradesh; Andaman & Nicobar Islands.

Restricted Demon *Notocrypta curvifascia* (Felder & Felder, 1862)

Image: UN by Pranav Gokhale



Image: UP by Raju Kasambe

Wing span: 38–50 mm.

Larval Host Plants:

Cheilocostus speciosus, *Curcuma aurantiaca*, *Curcuma decipiens*, *Hedychium coronarium*, *Kaempferia rotunda*, *Zingiber montanum*, *Zingiber zerumbet* (Zingiberaceae).

Distribution:

N. c. curvifascia (C. & R. Felder, 1862): Western Ghats: Maharashtra southwards to Kerala; Uttarakhand to N.E. India; Andaman & Nicobar Islands (Andamans).

Common Banded Demon *Notocrypta paralysos* (Wood-Mason & de Nicéville, 1881)



Image: UP by Jeevan Jose

Wing span: 30–40 mm.

Larval Host Plants: Ginger and turmeric *Curcuma* spp., *Curcuma aurantiaca*, *Zingiber* spp. (Zingiberaceae).

Distribution: Subspecies:

N. p. mangla Evans, 1939: Western Ghats: Maharashtra southwards to Kerala; Andhra Pradesh.

Conjoined Swift *Pelopidas conjuncta* (Herrich-Schäffer, 1869)

Images: UP and UN by Raju Kasambe

Wing span: 45–52 mm.

Larval Host Plants:

Grass spp., *Bambusa* sp., *Coix lacryma-jobi*, *Oryza sativa*, *Rottboellia cochinchinensis*, *Saccharum officinarum*, *Sorghum halepense*, *Triplopogon ramosissimus*, *Zea mays* (Poaceae).

Distribution: Subspecies:

P. c. narooa (Moore, 1878): Western Ghats: Gujarat southwards to Kerala and Jharkhand.

Contiguous Swift *Polytremis lubricans* (Herrich-Schäffer, 1869)



Images: UN by Balakrishnan Valappil



Image: UP by Firos A.K.

Wing span: 45–52 mm.

Larval Host Plants:

Brachiaria mutica, *Imperata cylindrica*, *Miscanthus sinensis* (Poaceae).

Distribution:

Western Ghats: Karnataka, Tamil Nadu and Kerala; Bihar, Uttarakhand to Arunachal Pradesh.

Variable Swift *Pelopidas mathias* (Fabricius, 1798)**(Syn. Small Branded Swift)**

Images: UN and UP by Raju Kasambe

Wing span: 32–38 mm.

Larval Host Plants: Poaceae, *Axonopus compressus*, *Brachiaria mutica*, *Brachiaria subquadripata*, *Imperata cylindrica*, *Oryza* sp., Rice *Oryza sativa*, *Saccharum* sp., Sugarcane *Saccharum officinarum*, *Sorghum bicolor* (Poaceae).

Distribution:

Throughout India including Andaman & Nicobar Islands (Central Nicobars).

Philippine Swift *Caltoris philippina philippina* (Herrich-Schäffer, 1869)



Images: UN and UP by Pranav Gokhale

Wing span: 43–44 mm.

Larval Host Plants:

Bambusa spp., *Bambusa vulgaris*, *Ochlandra travancorica*, *Oryza* spp. (Poaceae).

Distribution: *C. p. philippina*

Western Ghats: southern Maharashtra southwards to Kerala; Sikkim to N.E. India.

Coon *Psolos fuligo* (Mabille, 1876)

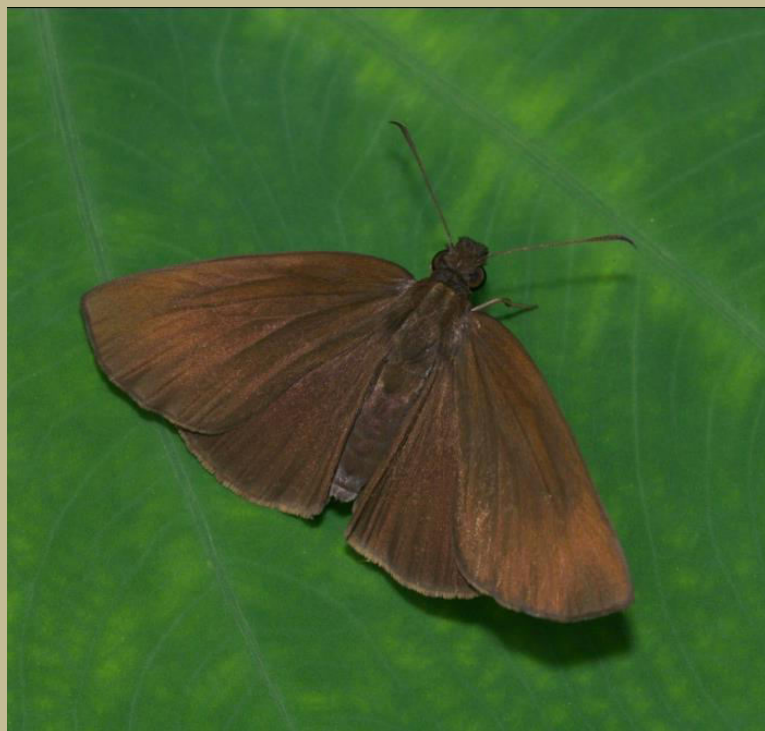


Image: UP by Jeevan Jose



Image: UN by Parag Rangnekar

Wing span: 36–46 mm.

Larval Host Plants:

Maranta arundinacea, *Indianthus virgatus*, *Stachyphrynium spicatum*
(Marantaceae).

Distribution:

P. f. subfasciatus (Moore, 1878): Southern Maharashtra (Amboli), Karnataka to Kerala; N.E. India.

Indian Palm Bob *Suastus gremius* (Fabricius, 1798)

Images: UN and UP by Raju Kasambe

Wing span: 32–45 mm.

Larval Host Plants:

Borassus flabellifer, *Calamus*, *Caryota urens*, Coconut *Cocos nucifera*, *Corypha umbraculifera*, *Phoenix sylvestris*, *Licuala chinensis* (Arecaceae). *Tamarindus indica* (Fabaceae).

Distribution:

S. g. gremius (Fabricius, 1798): Throughout India.

Small Palm Bob *Suastus minutus* Swinhoe, 1894**(Syn. Ceylon Palm Bob)**

Image: UN by Ashok Sengupta

Wing span: 32–45 mm.

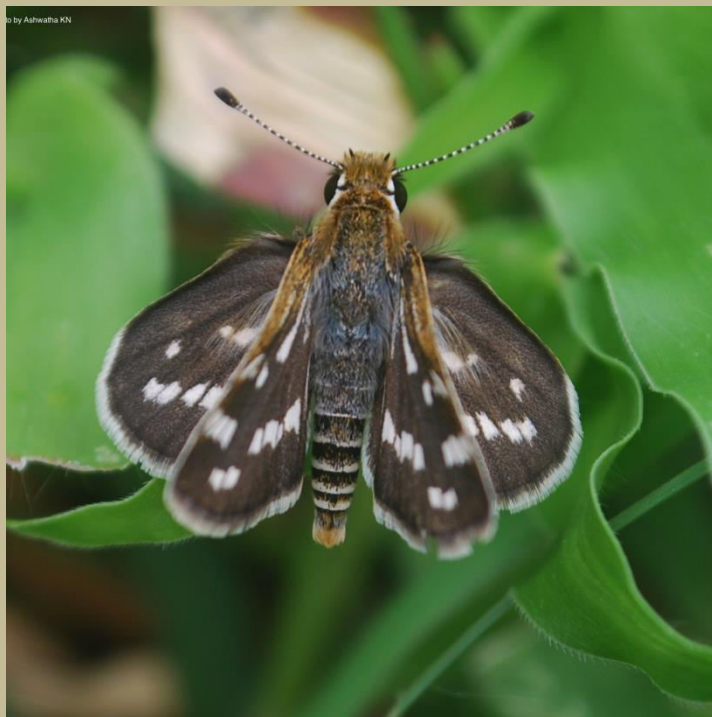
Larval Host Plants:

Calamus brandisii, *C. rotang*, *C. travancoricus*, *Caryota urens*, *Cocos nucifera*, *Phoenix loureiroi* (Arecaceae).

Distribution: *S. m. bipunctus* Swinhoe, 1894.

Western Ghats: Karnataka to Kerala.

Common Grass Dart *Taractrocer a maevius* (Fabricius, 1793)



Images: UN and UP by Ashwatha K.N.

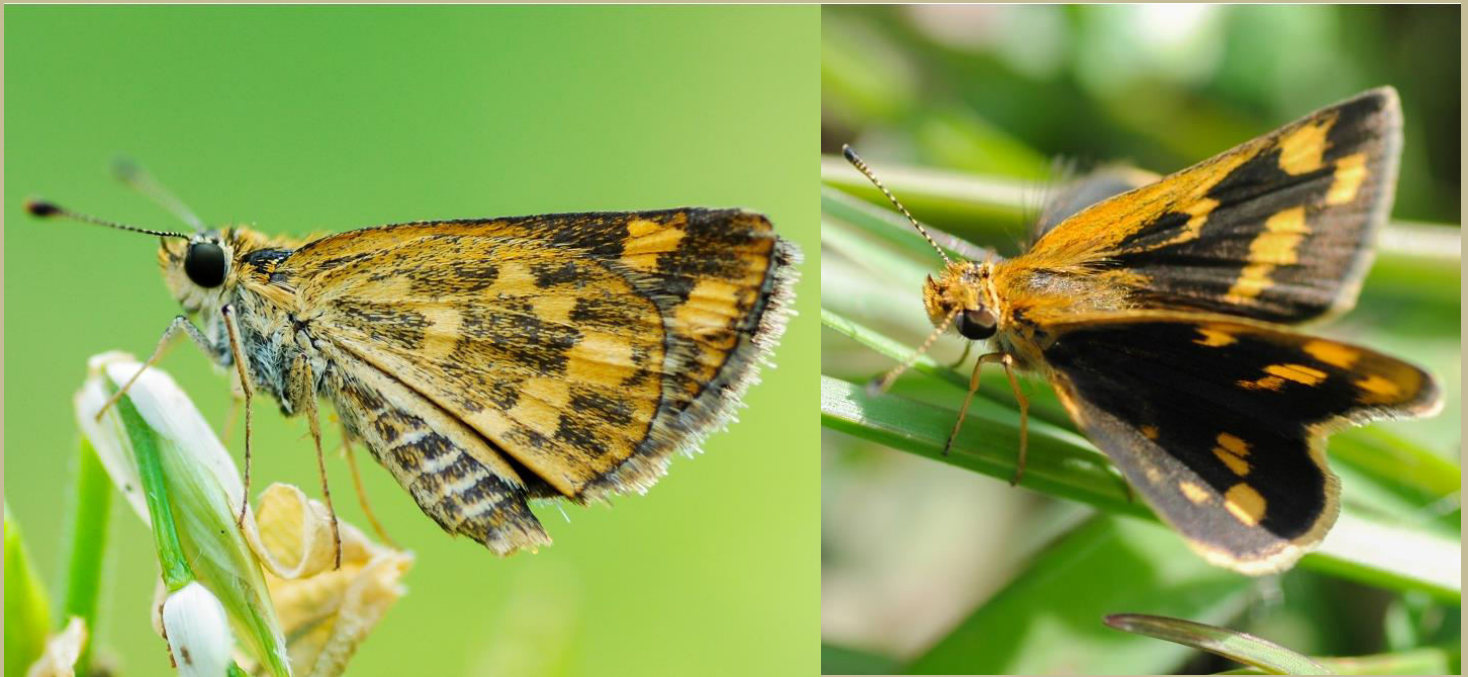
Wing span: 22–28 mm.

Larval Host Plants:

Grass species, including rice, *Oryza sativa*.

Distribution:

T. m. sagara (Moore, [1866]): Western Ghats: Gujarat to Kerala; Madhya Pradesh; West Bengal; Jammu & Kashmir to N.E. India.

Tamil Grass Dart *Taractrocera ceramas* (Hewitson, 1868)

Images: UN and UP both by Dattaprasad Sawant

Wing span: 23–30 mm.

Larval Host Plants:

Grass spp., *Axonopus compressus*, *Imperata cylindrica*, *Miscanthus sinensis*, *Oplismenus compositus*, *Oryza sativa* (Poaceae).

Distribution:

Subspecies: *T. c. ceramas* (Hewitson, 1868): Karnataka, Kerala and Andhra Pradesh.

Subspecies: *T. c. media* Evans, 1934: Goa and Karnataka.

Subspecies: *T. c. nicevillei* Watson, 1893: Maharashtra.

Subspecies: *T. c. oberthueri* Elwes & Edwards, 1897: Tamil Nadu (Anaimalai Hills).

Dark Palm Dart *Telicota bambusae* (Moore, 1878)

(Syn. *Telicota aneilla bambusae*)



Images: UN and UP by Raju Kasambe

Wing span: 33–36 mm.

Larval Host Plants:

Calamus spp., *Cocos nucifera* (Arecaceae), Grass spp., Bamboo *Bambusa* spp., *B. vulgaris*, *B. tuldoidea*, *Ochlandra travancorica*, *Oryza* sp., *Saccharum* spp. (Poaceae).

Distribution:

Throughout India except Rajasthan.

Common Palm Dart *Telicota colon* (Fabricius, 1775)
(Syn. Pale Palm Dart)



Images: UN and UP by Divakar Thombre

Wing span: 32–36 mm.

Larval Host Plants: Sugarcane *Saccharum officinarum*, Bamboo sp. *Bambusa*, *Bambusa vulgaris*, *Ochlandra travancorica*, *Oryza* sp., *Phragmites karka*, *Saccharum* sp. (Poaceae).

Distribution:

T. c. colon (Fabricius, 1775): Western Ghats: Gujarat southwards to Kerala; east to West Bengal; Delhi to Uttar Pradesh; Uttarakhand to Sikkim.

Plain Palm Dart *Cephrenes acalle* (Höppfer, 1874)



Image: UN by Raju Kasambe

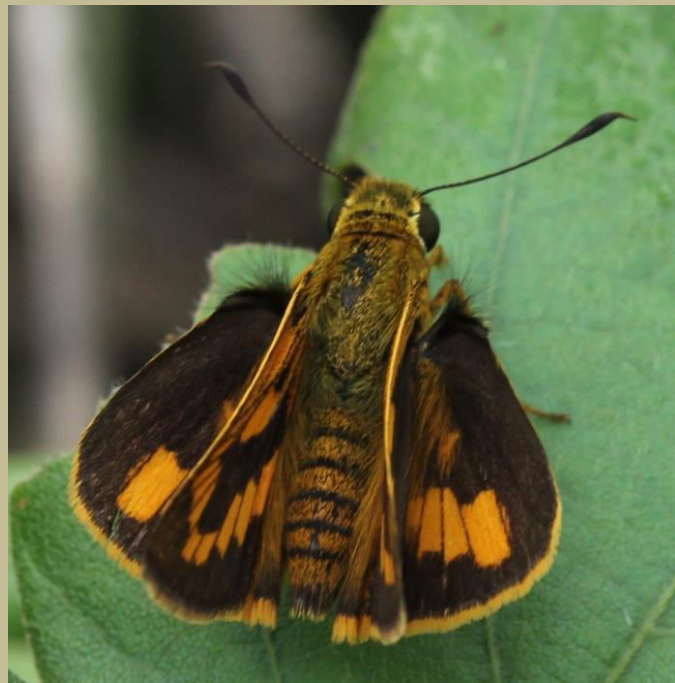


Image: UP by Chinmayi S.K.

Wing span: 42–44 mm.

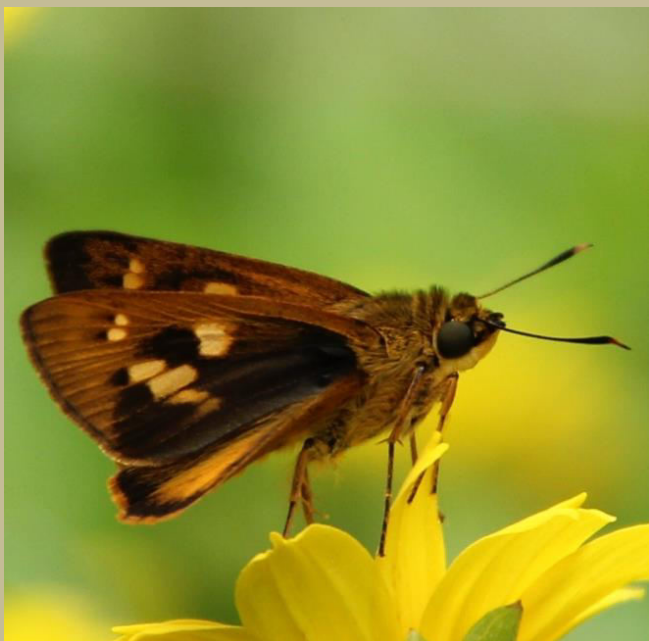
Larval Host Plants:

Palm sp., *Cocos nucifera*, *Borassus flabellifer* (Arecaceae).

Distribution: Subspecies:

C. c. oceanica (Mabille, 1904): Andaman & Nicobar Is. (Andamans), Sikkim to N.E. India; west coast of India (Maharashtra to Kerala).

Madras Ace *Thoressa honorei* (De Nicéville, 1887)



Images: UP and UN by Anila Manalil

Wing span: 30–38 mm.

Larval Host Plants:

Bamboo spp., *Bambusa bambos*, *Ochlandra* sp., *Ochlandra travancorica* (Poaceae).

Distribution:

Western Ghats: Southern Maharashtra (Amboli) to Kerala.

Endemicity:

Endemic to Western Ghats.

Grass Demon *Udaspes folus* (Cramer, 1775)

Images: UN and UP by Raju Kasambe

Wing span: 40–48 mm.

Larval Host Plants:

Species of ginger and turmeric and also grasses. *Fagraea racemosa* (Loganiaceae), *Oryza* sp. (Poaceae), *Curcuma aromatica*, *Curcuma decipiens*, *Curcuma longa*, *Curcuma pseudomontana*, *Hedychium coronarium*, *Hedychium*, *Zingiber*, *Zingiber officinale*, *Zingiber zerumbet* (Zingiberaceae).

Distribution:

Western Ghats: Gujarat southwards to Kerala; east to West Bengal; Himachal Pradesh to N. E. India.

Purple-spotted Flitter *Zographetus ogygia* (Hewitson, [1866])



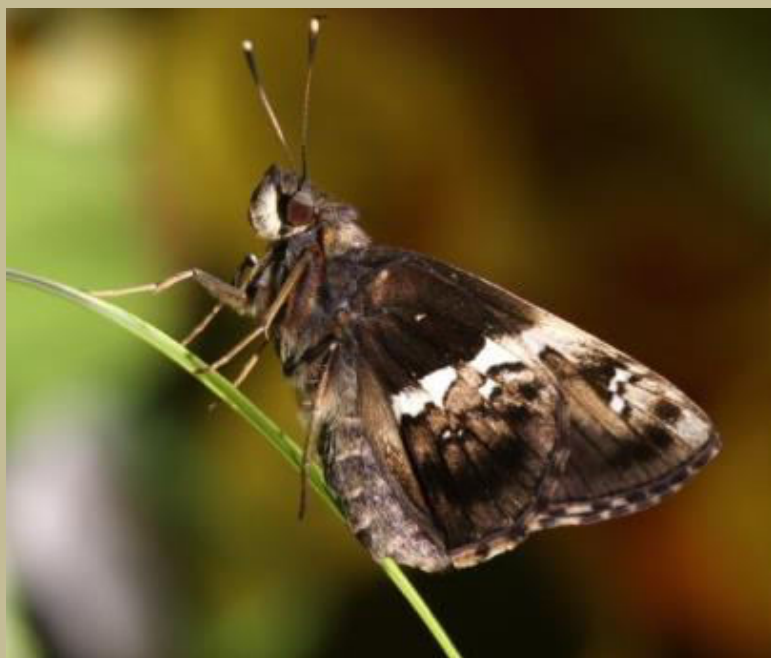
Image: UN by Vinayaraj

Wing span: 30–32 mm.

Larval Host Plants: *Aganope thyrsiflora*.

Distribution:

Western Ghats: Goa southwards to Kerala. Sikkim to N.E. India.

Tree Flitter *Hyarotis adrastus* (Stoll, 1780)

Images: UN and UP by Balakrishnan Valappil

Wing span: 38–48 mm.

Larval Host Plants:

Calamus sp., *Calamus hookerianus*, *Calamus rotang*, *Licuala* sp., *Phoenix* sp., *Phoenix acaulis* (Arecaceae).

Distribution:

H. a. praba (Moore, [1866]): Western Ghats: Southern Maharashtra (Amboli) to Kerala; Himachal Pradesh to N. E. India; Andaman Islands.

Golden Flitter *Quedara basiflava* (de Niceville,[1888])

Image: UN by Balakrishnan Valappil

Wing span: 38–48 mm.

Larval Host Plants:

Calamus hookerianus, *C. pseudofeanus*, *C. rotang*, *C. thwaitesii* (Arecaceae).

Distribution:

Western Ghats: Karnataka, Tamil Nadu and Kerala.

Endemicity:

Endemic to Western Ghats.

Maculate Lancer *Salanoemia sala* (Hewitson, [1866])

Image: UN by V.K. Chandrasekharan

Wing span: 32–36 mm.

Larval Host Plants:

Calamus hookerianus, *C. pseudofeanus*, *C. rotang*, *C. thwaitesii* (Arecaceae).

Distribution:

Western Ghats: Goa, Karnataka and Kerala; Assam.

Indian Dartlet *Oriens goloides* (Moore, 1881)

(Syn. Ceylon Dartlet)



Image: UN by Jeevan Jose

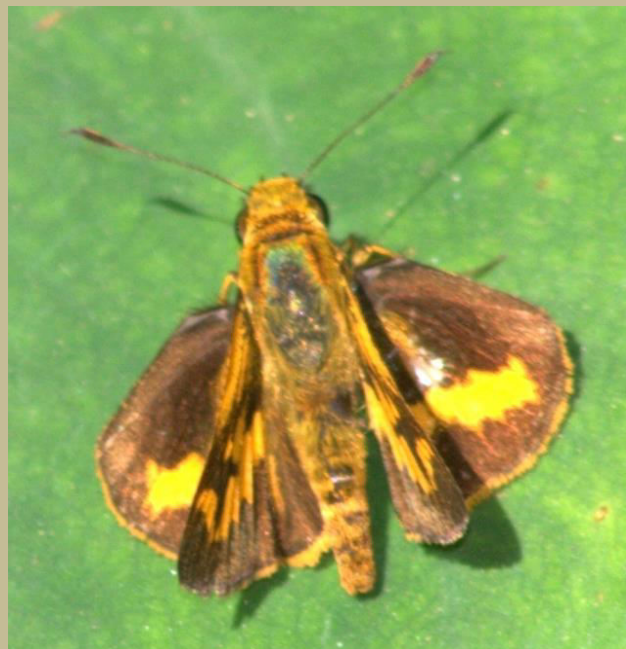


Image: UP by Raju Kasambe

Wing span: 24–28 mm.

Larval Host Plants:

Grass spp., *Axonopus compressus*, *Oplismenus compositus*, *Setaria barbata* (Poaceae).

Distribution:

Western Ghats: Southern Maharashtra (Amboli) southwards to Kerala; Sikkim to N.E. India.

Tamil Dartlet *Oriens concinna* (Elwes & Edwards, 1897)



Images: UN and UP by Balakrishnan Valappil

Wing span: 30–33 mm.

Larval Host Plants:

Grass spp. (Poaceae), *Axonopus compressus*, *Setaria barbata*.

Distribution:

Western Ghats: Karnataka to Kerala.

Endemicity:

Endemic to Western Ghats.

Indian Dart *Potanthus pseudomaesa* (Moore, [1881])

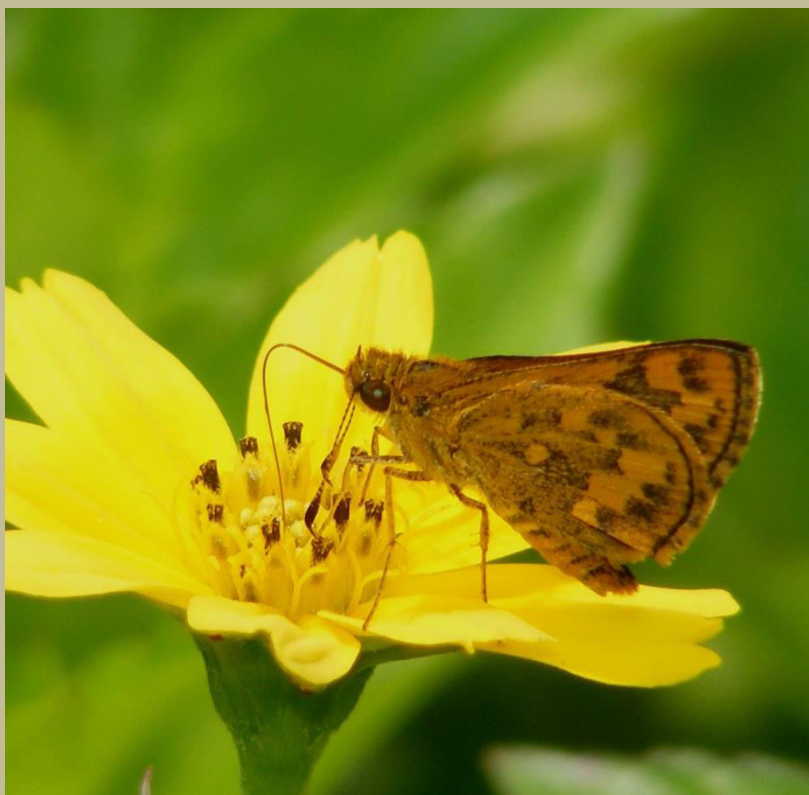


Image: UN by Haneesh K.M.



Image: UP by Raju Kasambe

Wing span: 25–32 mm.

Larval Host Plants:

Axonopus compressus (Poaceae).

Distribution: Subspecies: *P. p. pseudomaesa*

Peninsular India upto Rajasthan (entire Western Ghats), West Bengal.

Golden Angle *Caprona ransonnetti* (Felder, 1868)

Images: Clockwise from left: Male UN, DSF UP and WSF UP by Raju Kasambe

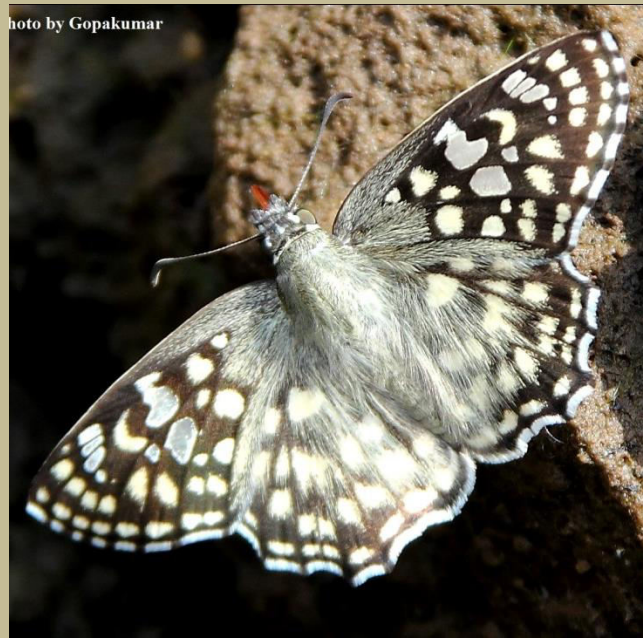
Wing span: 35–45 mm.

Larval Host Plants:

Helicteres isora (Sterculiaceae), *Erinocarpus nimmonii*, *Triumfetta rhomboidea*, *Urena lobata* (Malvaceae).

Distribution:

C. r. potiphera Hewitson, 1873: Western Ghats: Gujarat southwards to Kerala; east to Jharkhand.

Spotted Angle *Caprona agama* (Moore, 1857)

Images: UN and UP by Gopakumar

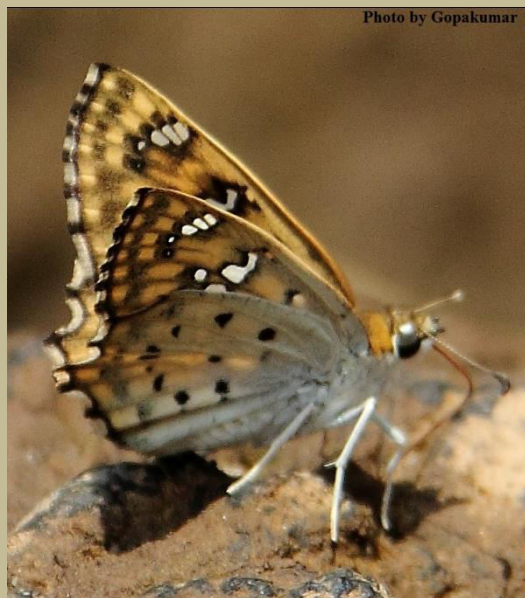
Wing span: 30–50 mm.

Larval Host Plants:

Microcos sp. (Malvaceae).

Distribution:

C. a. agama (Moore, [1858]): Western Ghats: Maharashtra southwards to Kerala; east to Jharkhand; Uttarakhand to N.E. India.

Evans' Angle *Caprona alida* (De Nicéville, 1891)**(Syn. Yellow Spotted Angle)**

Images: UN and UP by Gopakumar

Wing span: 30–50 mm.**Larval Host Plants:**

Data deficient.

Distribution: Subspecies:*C. a. vespa* Evans, 1949: Andhra Pradesh, Tamil Nadu to Madhya Pradesh and Odisha.

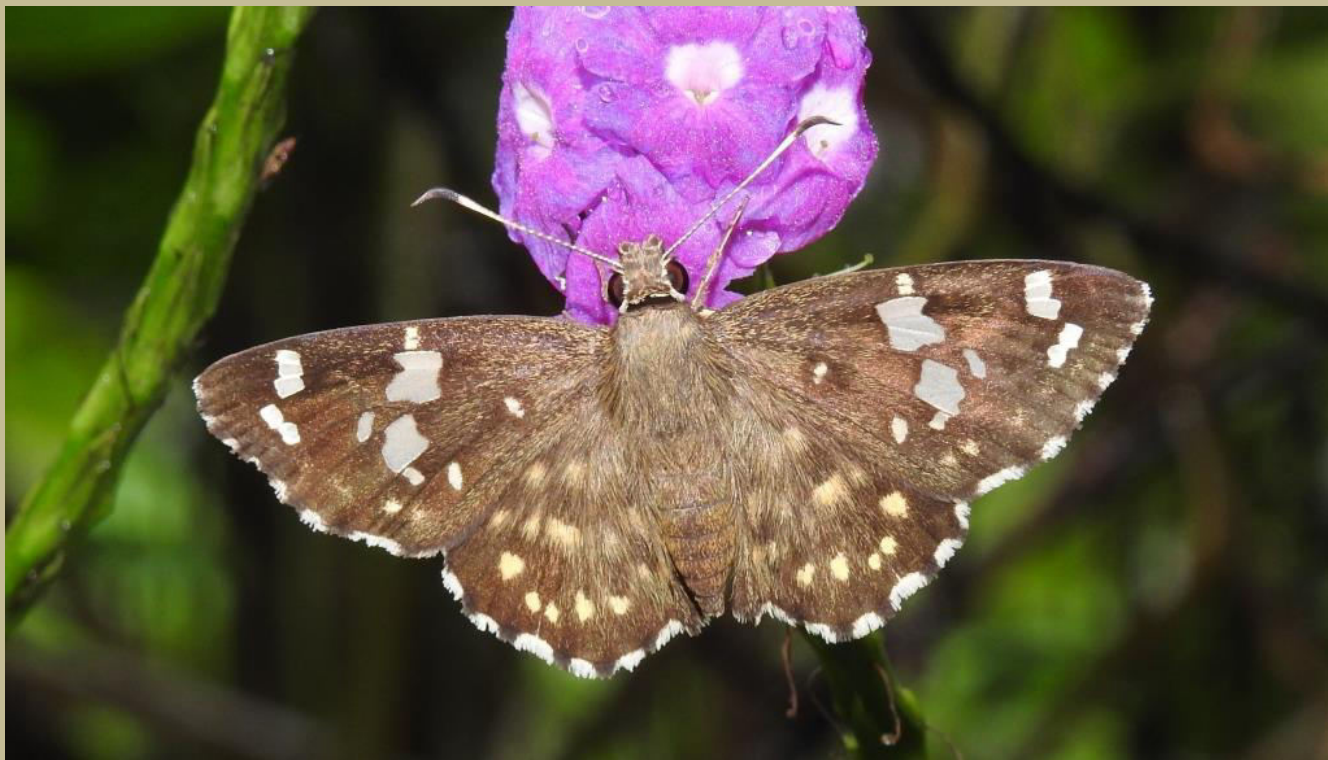
Malabar Flat *Celaenorrhinus ambareesa* (Moore, 1866)**(Syn. Malabar Spotted Flat)**

Image: UP by Raju Kasambe

Wing span: 45–55 mm.**Larval Host Plants:***Eranthemum purpurascens*, *E. roseum*, *Strobilanthes ciliata*, *S. callosus* (Syn. *Carvia callosa*) (Acanthaceae).**Distribution:**

Peninsular India, Gujarat (Dang district) southwards to Kerala (in Western Ghats); and Madhya Pradesh.

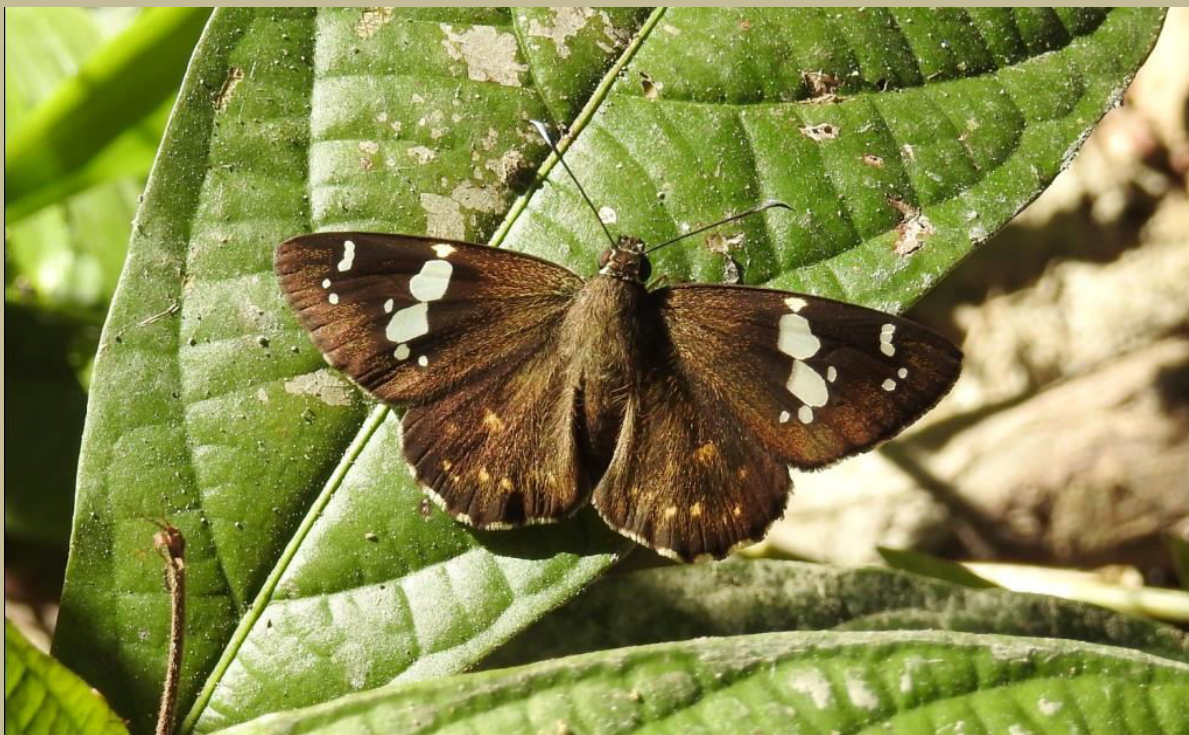
Common Spotted Flat *Celaenorrhinus leucocera* (Kollar, 1844)

Image: UP by Raju Kasambe

Wing span: 45–55 mm.

Larval Host Plants:

Asystasia gangetica, *Ecbolium ligustrinum*, *Eranthemum roseum*, *Nilgirianthus barbatus*, *N. heyneanus*, *Strobilanthes angustifrons*, *S. callosus* (Syn. *Carvia callosa*), *S. ciliata*, *S. integrifolia*, *Thelepaepale ixiocephala* (Acanthaceae).

Distribution:

Gujarat southwards Kerala; eastwards to West Bengal; Jammu and Kashmir to N.E India; Andaman & Nicobar Islands.

Bengal Spotted Flat *Celaenorrhinus putra* (Moore, [1866])

Image: UP by Vinayaraj

Wing span: 45–50 mm.

Larval Host Plants:

Strobilanthes ciliata (Acanthaceae).

Distribution: Subspecies:

C. p. putra (Moore, [1866]):

Recent records from Mumbai southwards in Western Ghats (Goa, Karnataka, Kerala). Sikkim, Arunachal Pradesh, North-east India.

Tamil Spotted Flat *Celaenorrhinus ruficornis* (Hampson, [1889])

(Syn. *Celaenorrhinus fusca* (Hampson, 1889))



Image: UP by Uajith

Wing span: 45–50 mm.

Larval Host Plants:

Strobilanthes asperrimus, *Strobilanthes callosus*, *Strobilanthes ciliate*
(Acanthaceae).

Distribution: Subspecies: *C. r. fusca*:

Western Ghats: Maharashtra southwards to Kerala.

Fulvous Pied Flat *Pseudocoladenia dan* (Fabricius, 1787)

Image: UN by Raju Kasambe

Wing span: 40–46 mm.

Larval Host Plants: *Achyranthes aspera*, *Cyathula prostrata* (Amaranthaceae).

Distribution: Subspecies:

P. d. dan (Fabricius, 1787): Western Ghats: Gujarat southwards to Kerala; Andhra Pradesh.

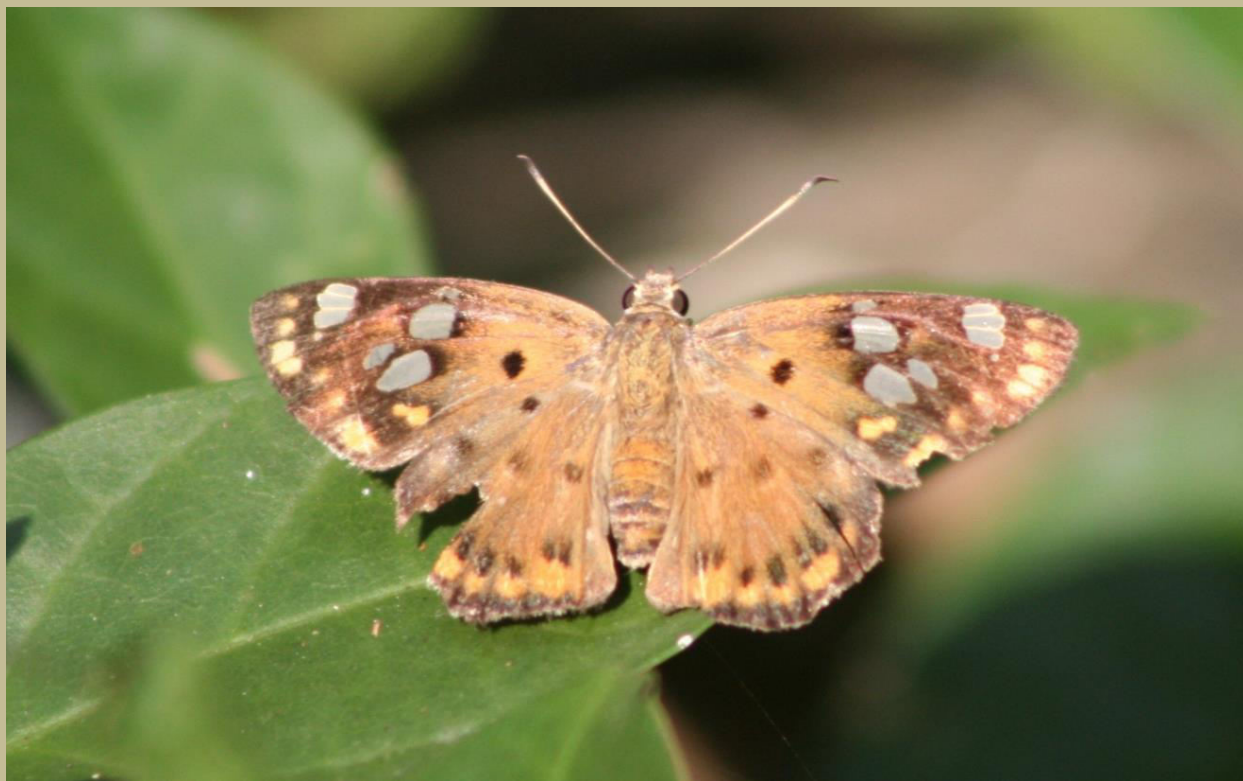
Tricoloured Pied Flat *Coladenia indrani* (Moore, 1866)

Image: UN by Raju Kasambe

Wing span: 40–46 mm.

Larval Host Plants:

Terminalia elliptica (Combretaceae), *Mallotus philippensis* (Euphorbiaceae), *Bauhinia racemosa*, *Dendrolobium triangulare*, *Desmodium* sp., *Dalbergia latifolia*, *Grewia nervosa*, *Xylia xylocarpa* (Fabaceae), *Kavalama urens*, *Talipariti tiliaceum*, *Thespesia populnea*, *Triumfetta rhomboidea* (Malvaceae), *Bridelia retusa* (Phyllanthaceae).

Distribution: Subspecies:

C. i. indra Evans, 1926: Western Ghats: Gujarat southward to Kerala; eastwards to West Bengal.

Common Yellow-breasted Flat *Gerosis bhagava* (Moore, 1866)

Image: UP by Tarun Karmakar

Wing span: 35–45 mm.

Larval Host Plants:

Dalbergia lanceolaria (Fabaceae).

Distribution: Subspecies:

G. b. bhagava (Moore, [1866]): Western Ghats: Goa southwards to Kerala (Karnataka, Tamil Nadu); Jharkhand, Sikkim to N.E. India.

African Marbled Skipper *Gomalia elma* (Trimen, 1862)

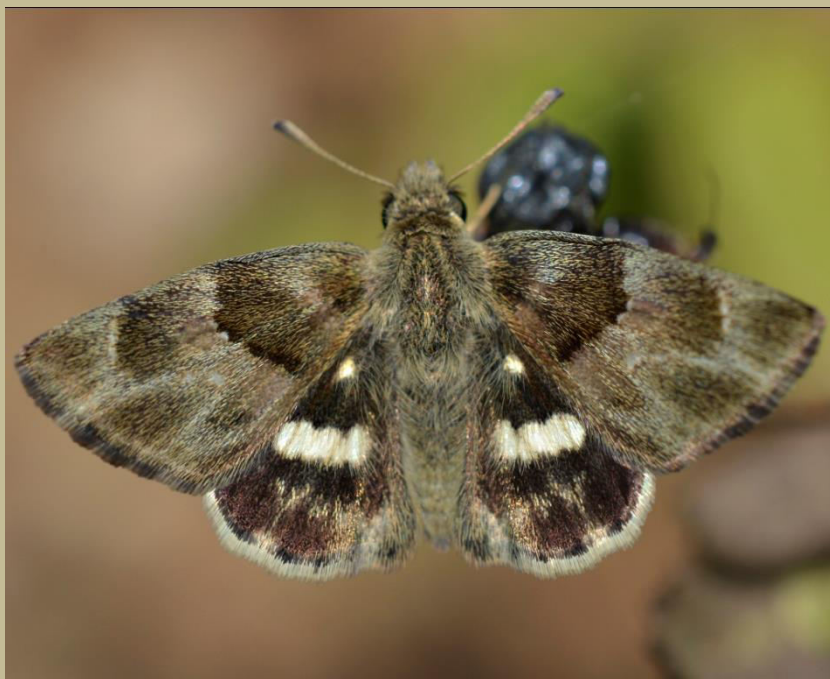


Image: UN and UP by Manidip Mandal

Wing span: 25–30 mm.

Larval Host Plants:

Abutilon indicum (Malvaceae).

Distribution:

G. e. albofasciata Moore, 1879: Western Ghats: Maharashtra southwards to Andhra Pradesh, Karnataka and Kerala; Telangana; Himachal Pradesh.

Chestnut Angle *Odontoptilum angulatum* (C. & R. Felder, 1862)

Image: UP by Dhaval Momaya

Wing span: 40–45 mm.

Larval Host Plants:

Ceiba sp., *Ceiba pentandra*, *Grewia nervosa*, *Hibiscus tilliaceous*, *Talipariti tiliaceum*, *Thespesia populnea*, *Urena lobata* (Malvaceae), *Allophylus cobbe* (Sapindaceae), *Xylia xylocarpa* (Fabaceae).

Distribution:

O. a. angulatum (C. & R. Felder, 1862): Western Ghats: Maharashtra southwards to Kerala; Himachal Pradesh to N.E. India.

Common Small Flat *Sarangesa dasahara* (Moore, 1866)

Image: UP by Raju Kasambe

Wing span: 26–35 mm.

Larval Host Plants:

Asystasia spp., *Blepharis asperrima*, *Lepidagathis cuspidata* (Acanthaceae).

Distribution: Subspecies:

S. d. adona Evans, 1949: Rajasthan to Odisha and south to Andhra Pradesh.

Subspecies:

S. d. davidsoni Swinhoe, 1912: Gujarat to Kerala.

Spotted Small Flat *Sarangesa purendra* (Moore, 1882)

Image: UP by Vinayaraj

Wing span: 25–35 mm.

Larval Host Plants:

Asystasia spp., *Blepharis* spp., *Blepharis asperrima* (Acanthaceae).

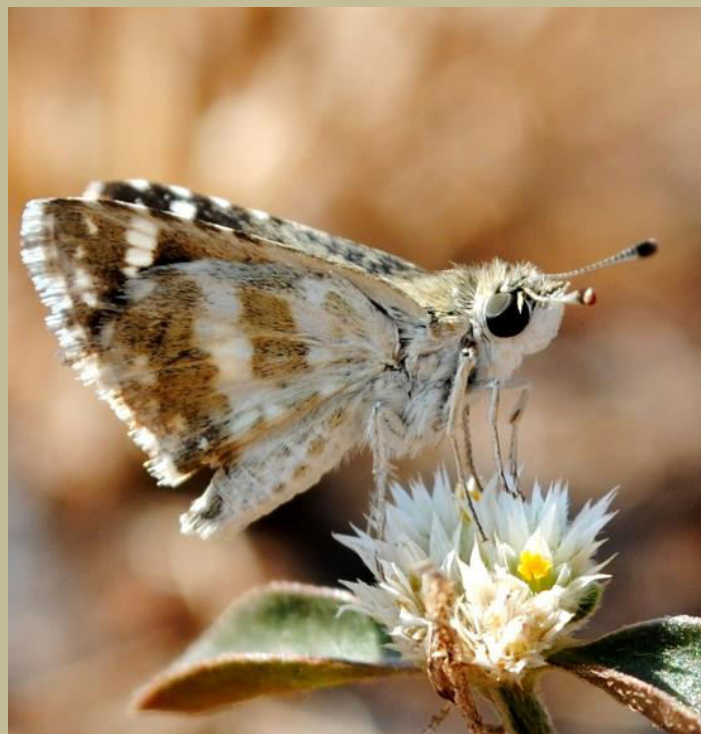
Distribution: Subspecies:

S. p. hopkinsi Evans, 1921: Karnataka; Tamil Nadu.

Subspecies:

S. p. pandra Evans, 1949: Rajasthan to Kerala.

Indian Skipper *Spialia galba* (Fabricius, 1793)



Images: UP and UN by Dattaprasad Sawant

Wing span: 20–27 mm.

Larval Host Plants:

Alcea rosea, *Hibiscus* spp., *Sida rhombifolia*, *Melochia corchorifolia*, *Urena lobata*, *Waltheria indica* (Malvaceae), *Glycine max* (Fabaceae).

Distribution:

Throughout India.

**Hampson's Hedge Hopper *Baracus hampsoni* Elwes & Edwards,
1897**



Images: UN and UP by Raju Kasambe

Wing span: 26–32 mm.

Larval Host Plants:

Grasses (Poaceae), *Imperata cylindrica*.

Distribution: Subspecies:

This is often treated as a subspecies of *Baracus vittatus* (C. Felder, 1862) along with other two subspecies from South India.

- i. *B. v. gotha* Evans, 1949: Tamil Nadu.
- ii. *B. v. hampsoni* Elwes & Edwards, 1897: Goa to Kerala.
- iii. *B. v. subditus* Moore, [1884]: Kerala to Tamil Nadu.

Striped Hedge Hopper *Baracus subditus* Moore, [1884]

Image: UN by Sagar Sarang

Wing span: 26–32 mm.

Larval Host Plants: Poaceae, *Imperata cylindrical* (Poaceae).

Distribution: Subspecies:

This is often treated as a subspecies of *Baracus vittatus* (C. Felder, 1862) alongwith other two subspecies from South India.

- i. *B. v. gotha* Evans, 1949: Tamil Nadu.
- ii. *B. v. hampsoni* Elwes & Edwards, 1897: Goa to Kerala.
- iii. *B. v. subditus* Moore,[1884]: Kerala to Tamil Nadu.

Suffused Snow Flat *Tagiades gana* (Moore, 1866)

Image: UP by Anila Manalil

Wing span: 45–50 mm.

Larval Host Plants: *Dioscorea oppositifolia*, *D. alata*, *D. wallichii* (Dioscoreaceae).

Distribution: Subspecies:

T. g. silvia Evans, 1934: Western Ghats: Gujarat southwards to Kerala.

Common Snow Flat *Tagiades jepetus* (Stoll, 1781)

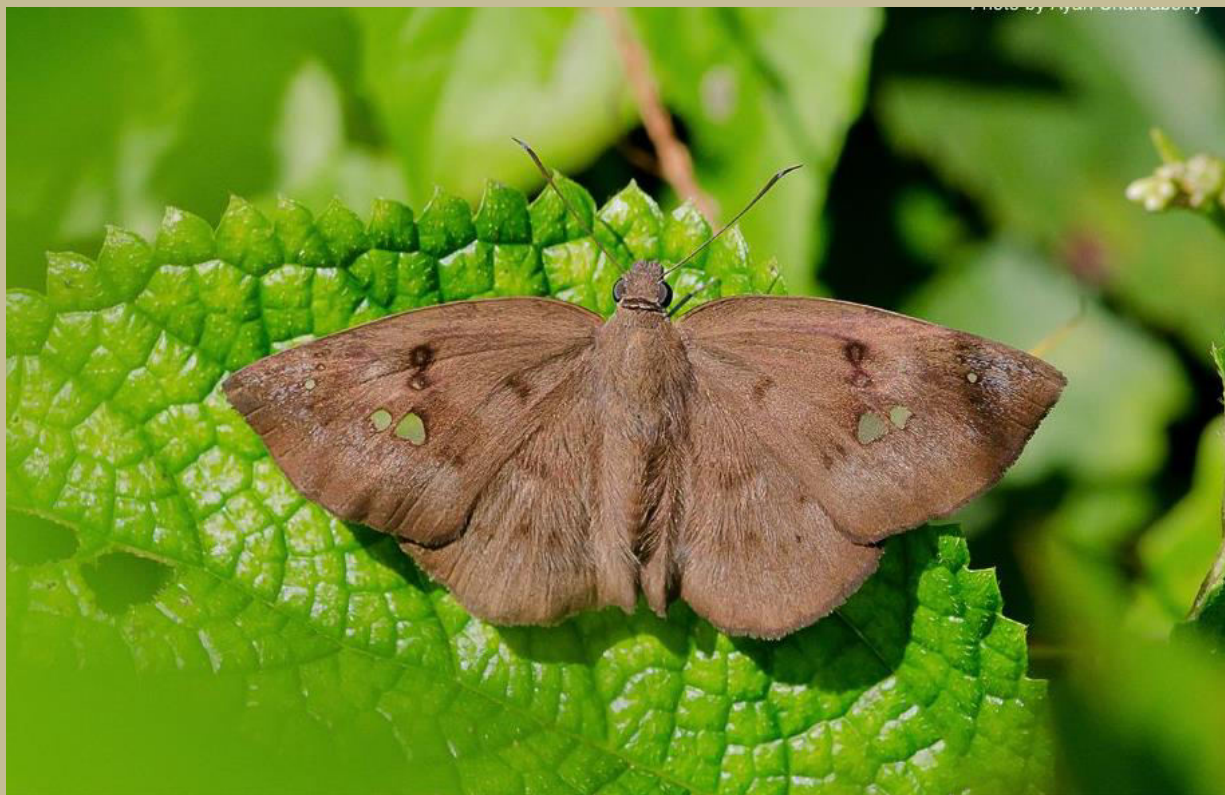


Image: UP by Ayan Chakraborty

Wing span: 45–50 mm.

Larval Host Plants:

Dioscorea oppositifolia, *D. alata*, *D. wallichii* (Dioscoreaceae).

Distribution: Subspecies:

T. j. obscurus Mabille, 1876: Western Ghats: Gujarat southwards to Kerala.

Water Snow Flat *Tagiades litigiosa* (Moeschler, 1878)

Image: UP by Raju Kasambe

Wing span: 37–44 mm.

Larval Host Plants:

Dioscorea oppositifolia, *D. alata*, *D. pentaphylla*, *D. wallichii* (Dioscoreaceae), *Shorea roxburghii* (Dipterocarpaceae) and *Smilax* sp. (Smilacaceae).

Distribution: Subspecies:

T. l. litigiosa Fruhstorfer, 1910: Western Ghats: Maharashtra southwards to Andhra Pradesh and Kerala; Himachal Pradesh to N.E. India; Jharkhand.

Black Angle *Tapena thwaitesi* (Moore, 1881)

Image: DSF UP by Raju Kasambe

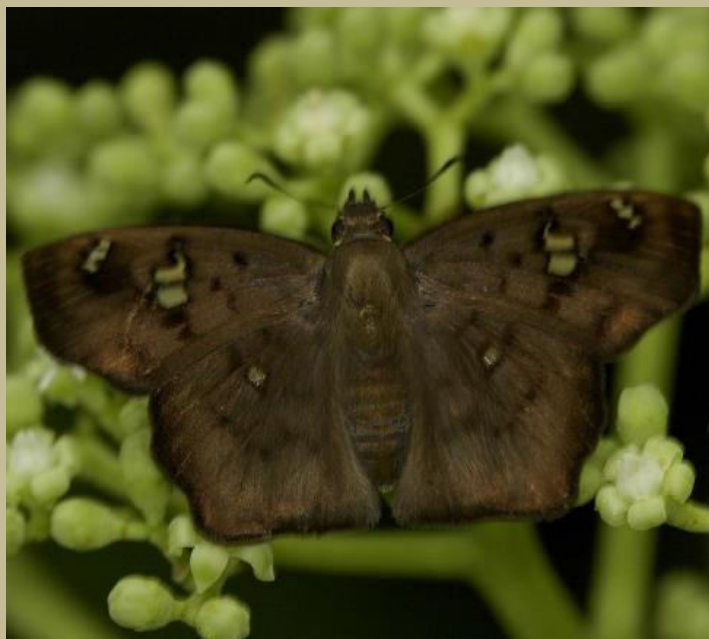


Image: WSF UP by Yuwaraj Gurjar

Wing span: 40 mm.

Larval Host Plants:

Dalbergia latifolia, *D. rubiginosa*, *D. pinnata*, *D. volubilis* (Fabaceae).

Distribution: Subspecies:

T. t. thwaitesi Moore, [1881]: Western Ghats: Gujarat southwards to Kerala and Andhra Pradesh.

Family Facts

Family Papilionidae: Swallowtails

The Swallowtails are large butterflies having tails at the rear of the hindwing. They are often black and yellow in color.

Swallowtails are generally characterized by the following: 1) have tails at the rear of the hindwing; 2) medium to large in size; 3) unique pattern of wing venation on the wings; and 3) fully developed and functioning forelegs in both sexes.

Other interesting traits of Swallowtails include a behavior called hill topping, in which males and females congregate at the tops of slopes or ridges in their effort to locate a mate. Swallowtails continue to flutter their wings while taking nectar from flowers, unlike other butterflies. This behavior is believed to help stabilize the large butterflies which otherwise might unbalance the flower, causing it to tip or bend.

Eggs of Swallowtails are round and green. The young caterpillars of Swallowtails often look like a bird dropping while older caterpillars are often greenish and marked with large eyespots. They are equipped with an osmeterium, a Y-shaped gland located behind the head which pops out and emit a pungent chemical to ward off potential predators. Swallowtail pupae often have both a cremaster and a silk girdle. Most beautiful (like Peacocks), threatened (like Kaiser-i-Hind, Bhutan Glory) and largest of the butterflies (like the Birdwings) belong to this family. These are much coveted as trophies and hence are illegally traded for their beauty.



Common Mormon showing 'Osmetorium'. Image by Dr. Jayant Wadatkar

Southern Bluebottle *Graphium teredon* (C. & R. Felder, 1865)

Image: UP by K. Mohan Raj

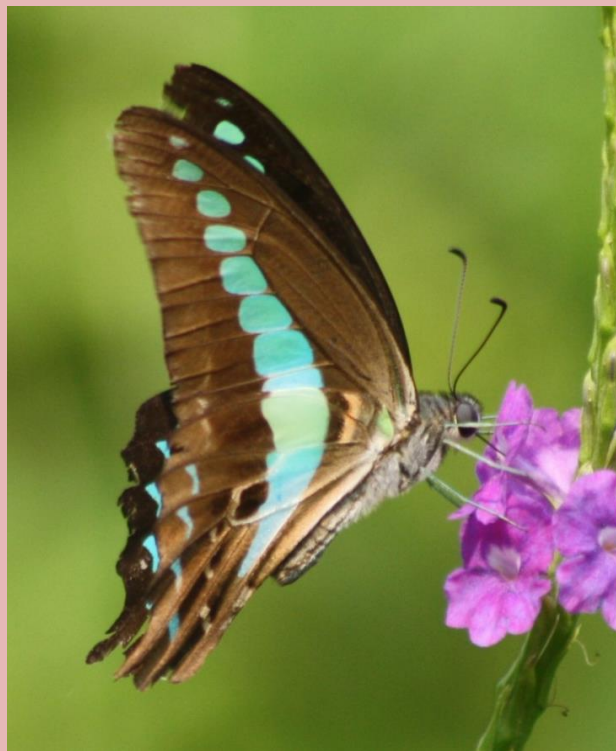


Image: UN by Raju Kasambe

Wing span: 80–90mm.

Larval Host Plants:

Alseodaphne spp., *A. owdenii*, *A. semecarpifolia*, *Camphora officinalis*, *Cinnamomum* spp., *C. camphora*, *C. macrocarpum*, *C. malabattrum*, *C. micranthum*, *C. verum*, *Litsea glutinosa*, *Miliusa tomentosa*, *Persea macrantha*, *P. odoratissima* (Lauraceae); *Magnolia doltsopa* (Magnoliaceae); *Geijera salicifolia* (Rutaceae).

Distribution: Entire Western Ghats as far north as Gujarat.

Note: Previously treated as Common Bluebottle *Graphium sarpedon* (Linnaeus, 1758).

Common Jay *Graphium doson* (C. & R. Felder, 1864)

Image: UP by School of Ecology and Conservation



Image: UN by Raju Kasambe

Wing span: 70–80mm.

Larval Host Plants:

Annonaceae, *Annona muricata*, *Polyalthia spp.*, False Ashoka *P. longifolia* (Annonaceae); *Hunteria zeylanica* (Apocynaceae); *Cinnamomum*, *Cinnamomum macrocarpum*, *Cinnamomum malabattrum* (Lauraceae); *Magnolia grandiflora*, *M. liliifera*, *M. oblonga*, *Trachelospermum asiaticum* (Magnoliaceae).

Distribution: Subspecies:

G. d. eleius (Fruhstorfer, 1907): South India to W. Bengal.

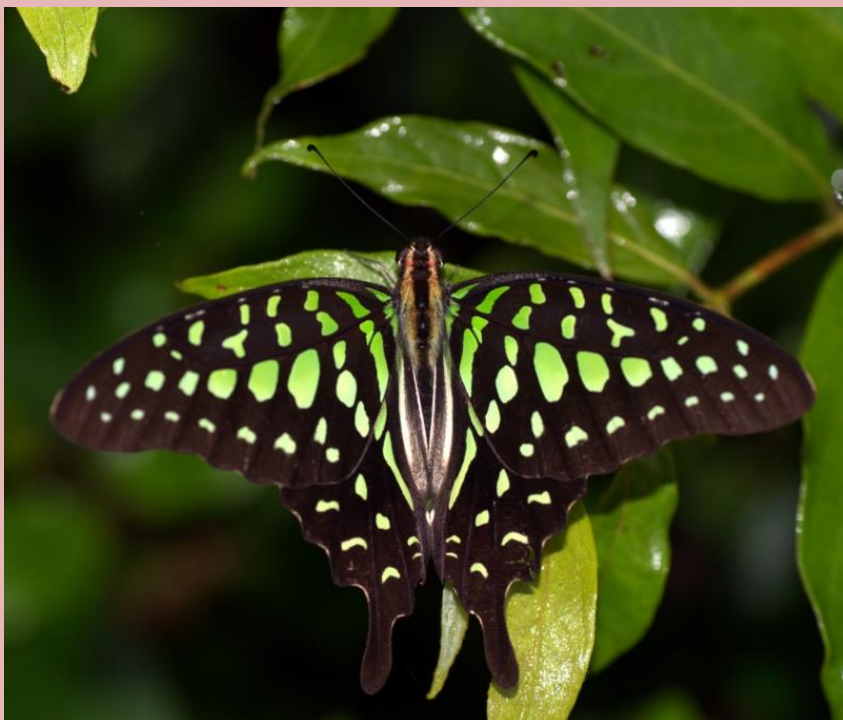
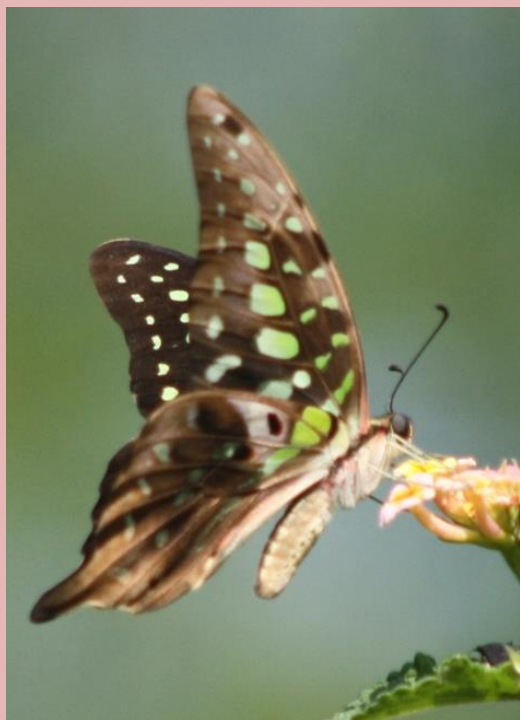
Tailed Jay *Graphium agamemnon* (Linnaeus, 1758)

Image: UN by Raju Kasambe; UP by Divakar Thombre

Wing span: 85–100mm.

Larval Host Plants:

Annona glabra, *A. muricata*, Custard Apple *A. squamosa*, *A. discolor*, *Artabotrys hexapetalus*, *Desmos chinensis*, *Goniothalamus cardiopetalus*, *Guatteria* spp., *Miliusa* spp., *Miliusa tomentosa*, *Mitrephora heyneana*, *Polyalthia cerasoides*, False Ashoka *Polyalthia longifolia*, *Uvaria narum* (Annonaceae); *Cinnamomum* spp. (Lauraceae); *Magnolia* spp., *M. champaca* (Magnoliaceae).

Distribution: Subspecies:

G. a. menides (Fruhstorfer, 1904): Western Ghats: Kerala to Gujarat; W. Bengal.

Fivebar Swordtail *Graphium antiphates* (Cramer, 1775)
(*Pathysa antiphates*)



Image: UN by Anila Manalil

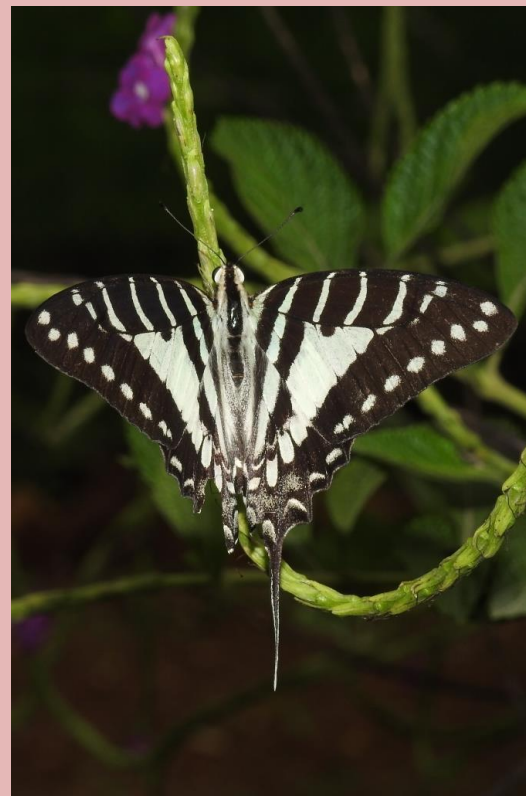
Wing span: 80–95mm.

Larval Host Plants:

Desmos chinensis, *Miliusa* spp. (Annonaceae), *Magnolia doltsopa* (Magnoliaceae).

Distribution: Subspecies:

Graphium antiphates naira (Moore, [1903])(Syn. *G. a. alcibiades* (Fabricius, 1787): Western Ghats: Goa southwards to Kerala.

Spot Swordtail *Graphium nomius* (Esper, 1799)

Images: UN and UP by Raju Kasambe

Wing Span: 75-90mm.

Larval Host Plants:

Miliusa tomentosa, *M. velutina*, *Polyalthia longifolia* (Annonaceae).

Distribution: Subspecies:

G. n. nomius (Esper, 1799): Delhi; Rajasthan; Sikkim; Uttarakhand; Uttar Pradesh; Bihar; throughout drier parts of Southern India to West Bengal.

Common Mime *Papilio clytia*, Linnaeus, 1758**(Syn. *Chilasa clytia*)**Image: Form *dissimilis* UNUP by Raju KasambeImage: Form *clytia* UN by Jeevan Jose**Wing span:** 90–100mm.**Larval Host Plants:**

Alseodaphne semecarpifolia, *Cinnamomum* spp., *C. camphora*, *C. macrocarpum*, *C. malabattrum*, *C. tamala*, *C. verum*, *Clausena* spp., *Litsea deccanensis*, *L. glutinosa*, *Persea gamblei*, *Ocotea lancifolia* (Lauraceae); *Sarcosperma arboretum* (Sapotaceae).

Distribution: Subspecies:

P. c. clytia Linnaeus, 1758: Throughout India except Jammu & Kashmir, Punjab and Rajasthan, below 2750 m elevation.

Common Mormon *Papilio polytes* (Linnaeus, 1758)



Image: Male UP by Varun Omanakuttan



Image: Female UP form *romulus* by Jeevan Jose



Image: Female form *stichius* UP by Jeevan Jose



Image: Female form *stichius* UN by Raju Kasambe

Wing span: 90–100mm.

Larval Host Plants:

Aegle marmelos, *Atalantia racemosa*, *Citrus* spp., *C. aurantiifolia*, *C. maxima*, *C. limon*, *C. medica*, *Clausena anisata*, *Correa* spp., *Glycosmis* spp., *G. pentaphylla*, *Murraya* spp., *M. koenigii*, *M. paniculata*, *Ravenia spectabilis*, *Triphasia* spp., *Zanthoxylum* spp., *Z. rhetsa* (Rutaceae).

Distribution: Subspecies:

P. p. romulus Cramer, [1775]: Throughout India below 2000 m elevation.

Malabar Raven *Papilio dravidarum* (Wood-Mason, 1880)



Image: UP by Anila Manalil

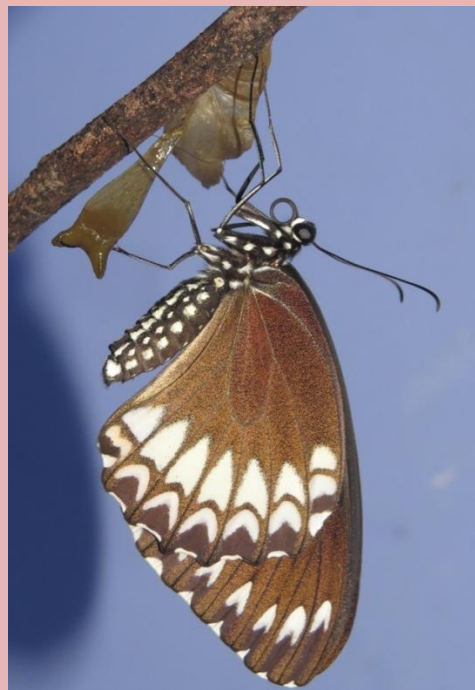


Image: UN by Vinayaraj

Wing span: 80–120mm.

Larval Host Plants:

Glycosmis pentaphylla, *Clausena heptaphylla* (Rutaceae).

Distribution:

Western Ghats: Goa southwards to Kerala.

Endemicity:

Endemic to Western Ghats.

Red Helen *Papilio helenus* (Linnaeus, 1758)

Image: UN by Erin Silversmith



Image: UP by J.M. Garg

Wing span: 110–130mm.

Larval Host Plants:

Rutaceae, *Citrus* spp., *C. limon*, *Clausena heptaphylla*, *Glycosmis pentaphylla* (Syn. *Glycosmis arborea*), *Phellodendron* spp., *Toddalia asiatica*, *Zanthoxylum acanthopodium*, *Z. rhetsa* (Rutaceae).

Distribution: Subspecies:

P. h. daksha Hampson, 1889: Western Ghats: Gujarat southwards to Kerala.

Blue Mormon *Papilio polymnestor* (Cramer, 1775)

Image: UP by Raju Kasambe

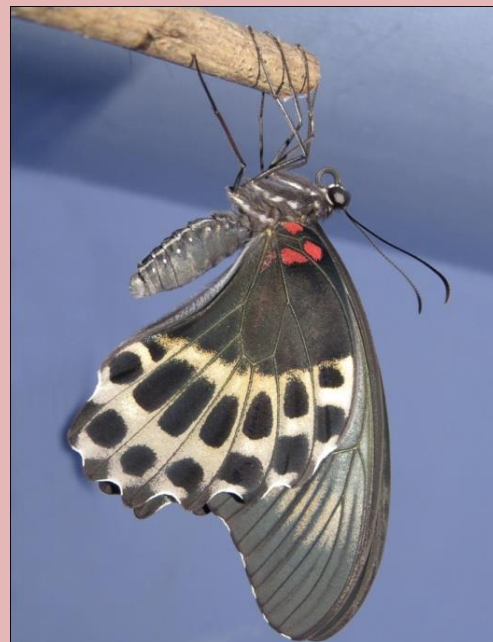


Image: UN by Vinayraj

Wing span: 120–150mm.

Larval Host Plants:

Atalantia racemosa, *A. wightii*, *Citrus maxima*, *C. limon*, *Glycosmis pentaphylla*, *Murraya koenigii*, *Paramignya monophylla* (Rutaceae); *Garcinia xanthochymus* (Clusiaceae).

Endemicity:

Endemic to India and Sri Lanka.

Distribution:

P. p. polymnestor Cramer, [1775]: Peninsular India as far north as West Bengal and Bangladesh, to Madhya Pradesh and Gujarat. Entire Western Ghats.

Note: It is the ‘State butterfly’ of Maharashtra state.

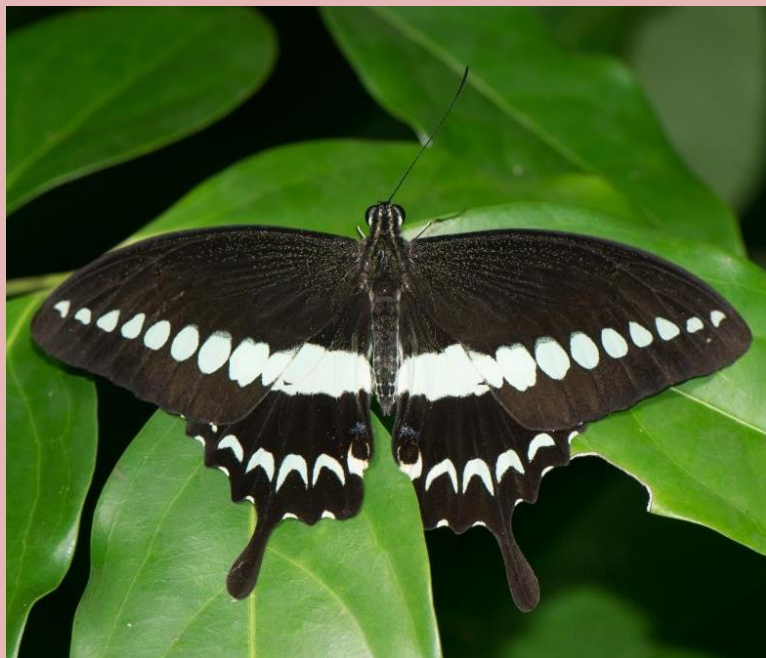
Malabar Banded Swallowtail *Papilio liomedon* (Moore, 1875)

Image: UP by Santosh Hatti

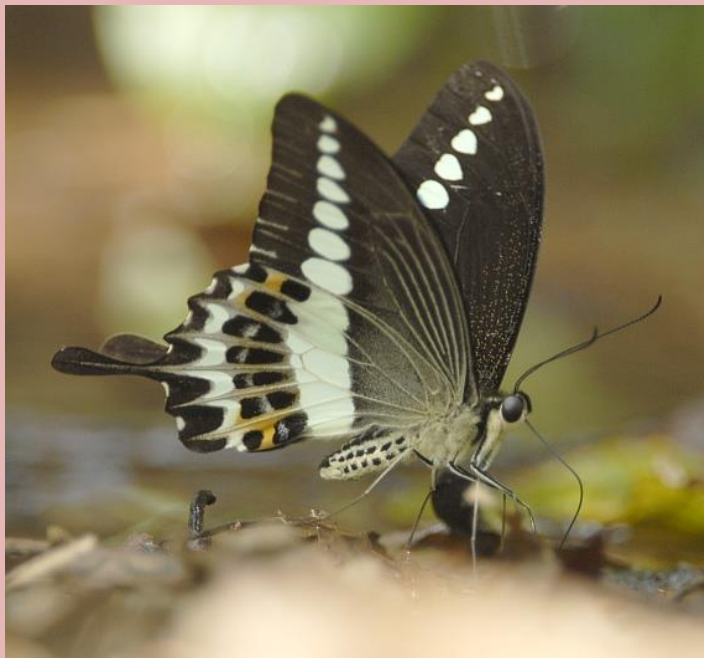


Image: UN by Kalyan Varma

Wing span: 90–100mm.

Larval Host Plants:

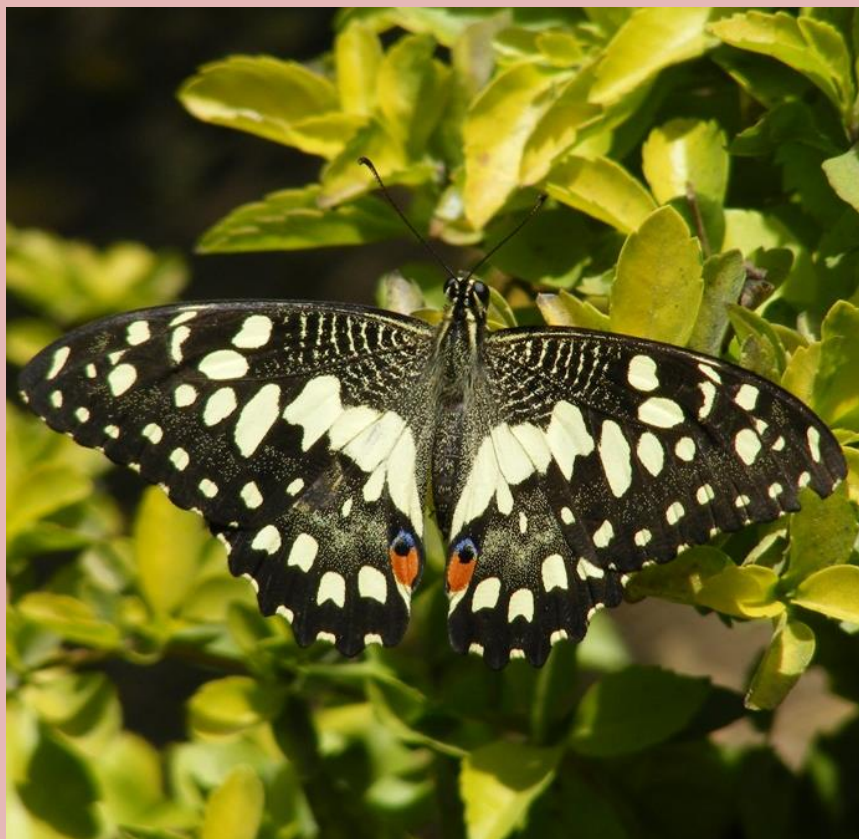
Acronychia pedunculata, *Melicope lunu-ankenda* (Rutaceae).

Distribution:

Western Ghats: Goa southwards to Kerala.

Endemicity:

Endemic to Western Ghats.

Lime Butterfly *Papilio demoleus* (Linnaeus, 1758)

Images clockwise from left: Fresh specimen UP by Raju Kasambe; Fresh specimen UN by Raju Kasambe and old specimen UN image by Ravi Vaidyanathan

Wing span: 80–100mm.

Larval Host Plants:

Rutaceae, *Acronychia pedunculata*, *Aegle* spp., *A. marmelos*, *Citrus* spp., *C. aurantiifolia*, *C. maxima*, *C. sinensis*, *Glycosmis pentaphylla*, *Limonia elephantum*, *Murraya* spp., *M. koenigii*, *Ruta angustifolia*, *R. graveolens*, *Chloroxylon swietenia*, *Toddalia trifoliata* (Rutaceae); *Ziziphus* spp., *Z. jujuba* (Rhamnaceae), *Cullen corylifolium* (Fabaceae); *Tilia* spp. (Malvaceae).

Distribution:

P. d. demoleus Linnaeus, 1758: Throughout India below 2000 m elevation.

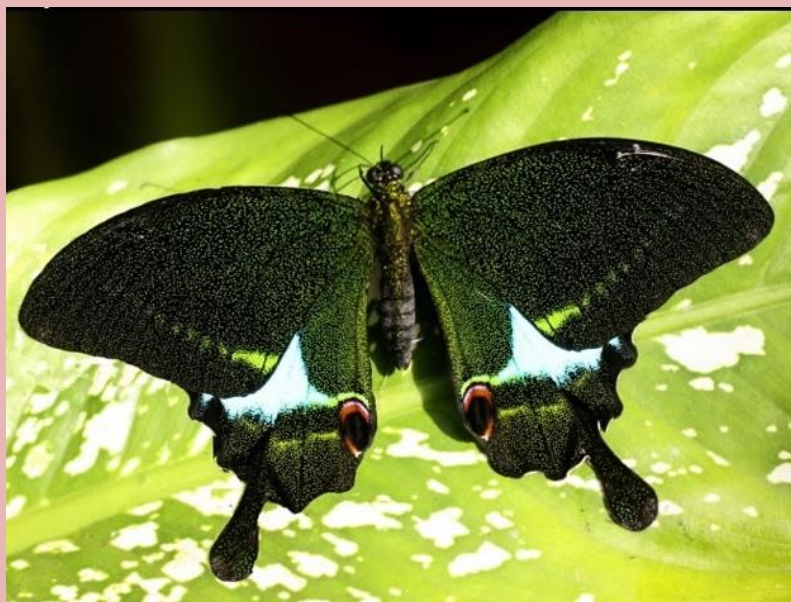
Paris Peacock *Papilio paris* (Linnaeus, 1758)

Image: UP by Balakrishnan Valappil



Image: UN by J.M. Garg

Wing span: 90–140mm.

Larval Host Plants:

Citrus spp., *Melicope lunu-ankenda*, *Toddalia asiatica*, *Zanthoxylum ovalifolium*, *Z. oxyphyllum* (Rutaceae).

Distribution: Subspecies:

P. p. tamilana Moore, 1881: Western Ghats: Southern Maharashtra (Amboli) southwards to Kerala. Reported from Phansad, Maharashtra.

Common Banded Peacock *Papilio crino* (Fabricius, 1792)

Image: UP by Sayan Sanyal



Image: UN by Kalyan Varma

Wing span: 80–100mm.

Larval Host Plants:

Chloroxylon swietenia (Rutaceae).

Distribution:

Peninsular India as far north as West Bengal. Western Ghats: Karnataka, Tamil Nadu and Kerala. Andhra Pradesh; West Bengal; Records from eastern Maharashtra (Gadchiroli).

Malabar Banded Peacock *Papilio buddha* (Westwood, 1872)



Image: UP by Ashok Sengupta



Image: UN by Vengolis

Wing span: 90–100mm.

Larval Host Plants:

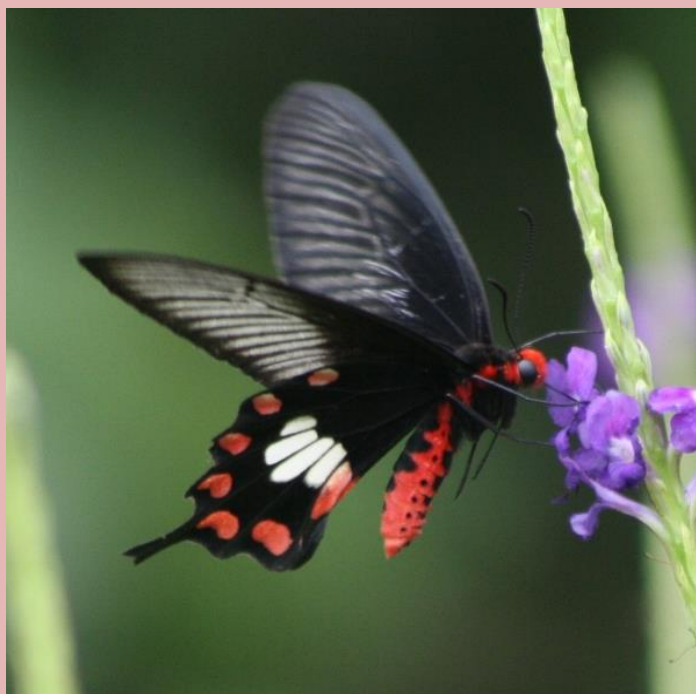
Zanthoxylum rhetsa (Rutaceae).

Distribution:

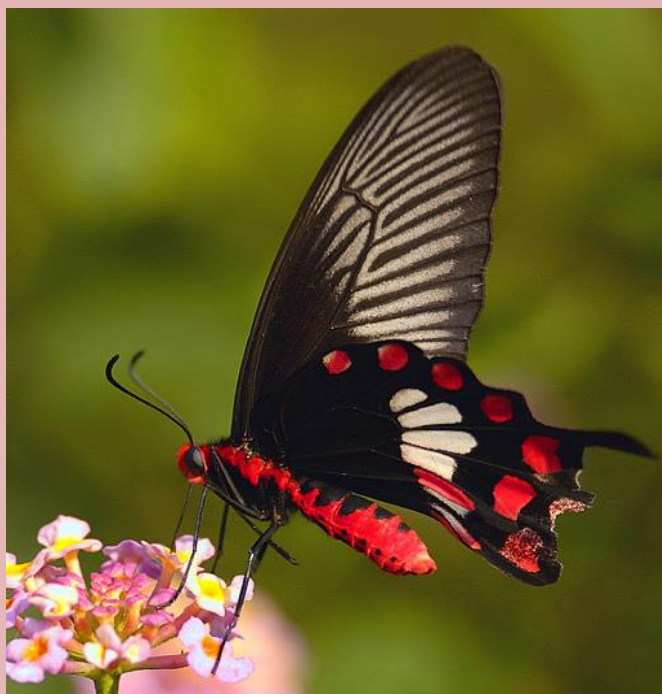
Western Ghats: Southern Maharashtra southwards to Kerala.

Endemicity:

Endemic to Western Ghats.

Common Rose *Pachliopta aristolochiae* (Fabricius, 1775)

UNUP by Raju Kasambe



UN by Yathin S. Krishnappa

Wing span: 80–110mm.

Larval Host Plants:

Aristolochia spp., *A. bracteolata*, *A. griffithii*, *A. indica*, *A. tagala*, *Thottea siliquosa*, *Bragantia wallichii* (Aristolochiaceae).

Distribution: Subspecies:

P. a. aristolochiae (Fabricius, 1775): Throughout India.

Malabar Rose *Pachliopta pandiyana* (Moore, 1881)

Image: UN by Hariharan Subramanian

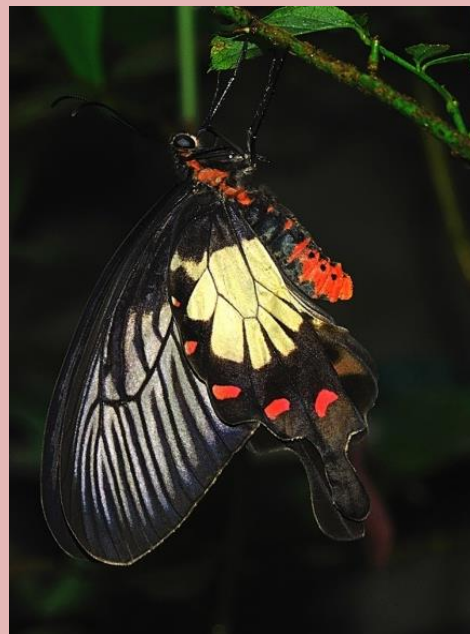


Image: UN by Hariharan Subramanian

Wing Span: 100–130mm.

Larval Host Plants:

Thottea siliquosa (Aristolochiaceae).

Distribution:

Western Ghats: Goa southwards to Kerala.

Endemicity:

Endemic to Western Ghats.

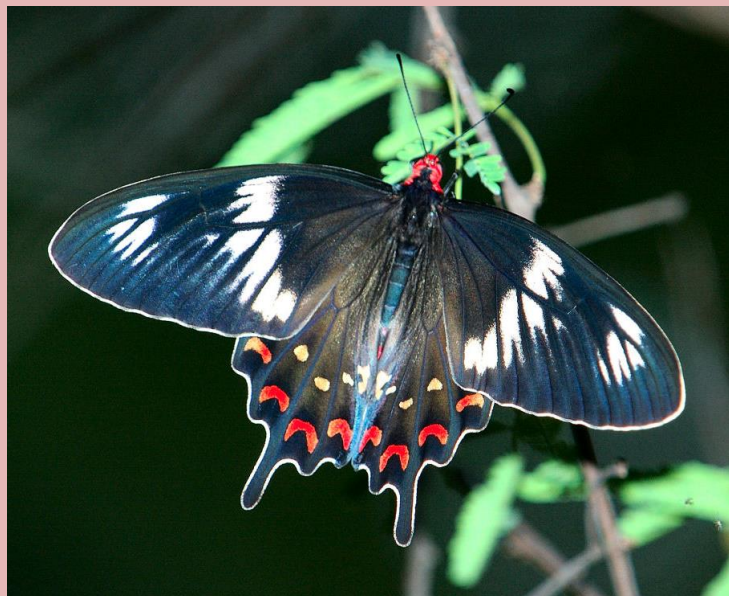
Crimson Rose *Pachliopta hector* (Linnaeus, 1758)

Image: UP by Dr. Tarique Sani

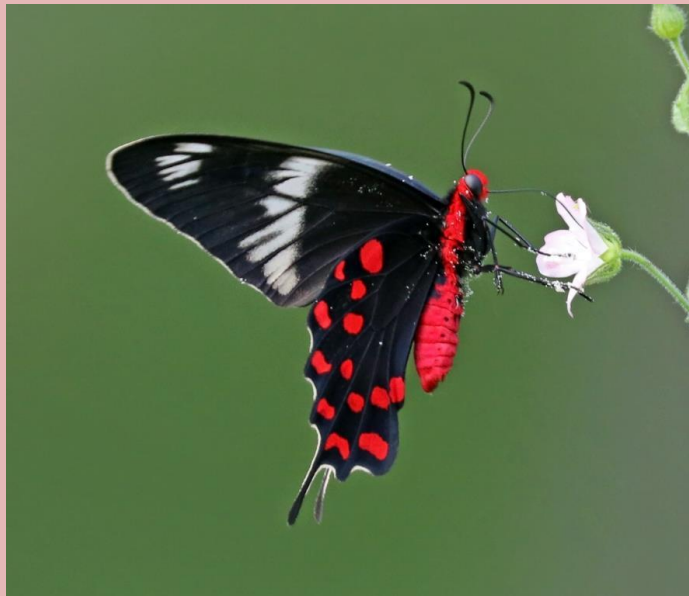


Image: UN by Charlesjsharp

Wing span: 90–110mm.

Larval Host Plants:

Aristolochia spp., *A. bracteolata*, *A. griffithii*, *A. indica*, *A. tagala*
(Aristolochiaceae).

Distribution:

Entire Western Ghats. Peninsular India upto West Bengal. Straggler to the Andamans and Uttarakhand.

Southern Birdwing *Troides minos* (Cramer, 1779)

Image: UP by Vengolis



Image: UN by Anila Manalil

Wing span: 140–190 mm.

Larval Host Plants:

Aristolochia griffithii, *A. indica*, *A. tagala*, *Bragantia wallichii*, *Thottea siliquosa* (Aristolochiaceae).

Distribution:

Western Ghats: Southern Maharashtra southwards to Kerala.

Endemicity:

Endemic to Western Ghats.

Family Facts

Family Pieridae: Whites and Yellows

Most butterflies of the family Pieridae are white or yellow in color, as the family's common name suggests. They have black, red or orange markings.

Butterflies belonging to this family have following general features: 1) medium size; 2) the tips of the legs, called the claws, are forked; 3) the forelegs of males and females are full-sized and fully functional; and 4) many exhibit sexual dimorphism, meaning that male and female butterflies of the same species look different. Several species show seasonal variations, like dry season forms (DSF) and wet season forms (WSF). They love basking in the sunlight with wings open, hence majority are found in open country. Males of many species gather at wet patches for mudpuddling.

Eggs are generally round and elongated, like a cylinder, and ribbed. They are laid either singly or in batches. Caterpillars are generally green and without hairs or spines. Pupae typically have both a cremaster and a silk girdle, and often are pointed at the head. They are anchored at the tail.

Indian Cabbage White *Pieris canidia* (Linnaeus, 1768)

Image: UN by J.M. Garg



Image: UP by J.M. Garg

Wing span: 45–60mm.

Larval Host Plants:

Rorippa dubia, *R. indica*, *Sisymbrium* spp., *Brassica oleracea* (Brassicaceae).

Distribution:

P. c. canis Evans, 1912: Western Ghats: Kerala and Tamil Nadu.

Pioneer *Belenois aurota* Fabricius, 1793

Images: UN and UP by Raju Kasambe

Wing span: 40–55mm.

Larval Host Plants:

Capparis baducca, *C. brevispina*, *C. decidua*, *C. divaricata*, *C. pyrifolia*, *C. sepiaria*, *C. spinosa*, *C. zeylanica*, *Maerua oblongifolia*, *M. cylindrocarpa*, *Cadaba fruticosa* (Capparaceae); *Jasminum multiflorum* (Oleaceae).

Distribution:

Throughout India except north eastern states.

Common Gull *Cepora nerissa* (Fabricius, 1775)

Images: Clockwise from top left: Male UN, Male UP, Female UP and Female UN all by Raju Kasambe

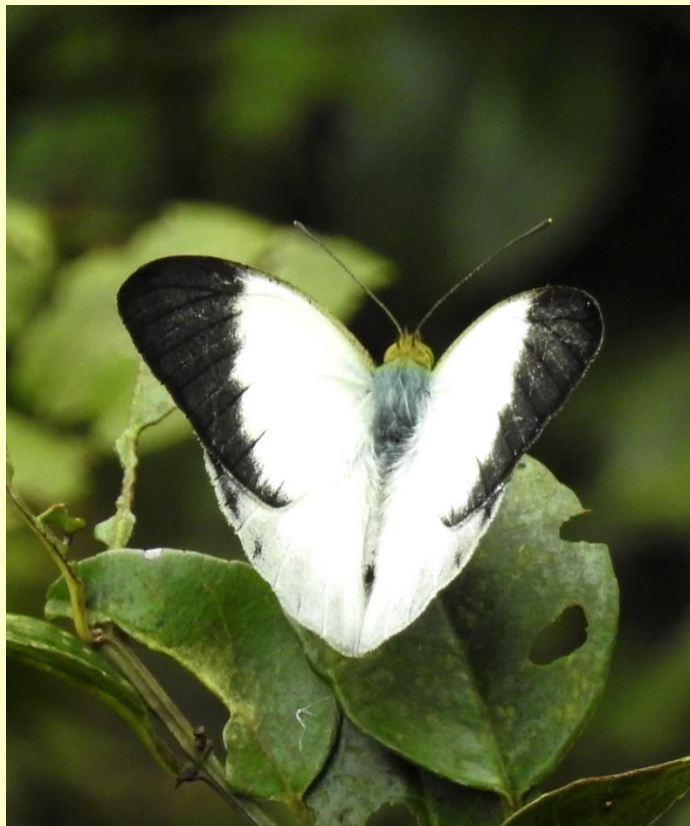
Wing span: 40–65mm.

Larval Host Plants

Cadaba fruticosa, *C. baducca*, *C. brevispina*, *C. cleghornii*, *C. decidua*, *C. sepiaria*, *C. zeylanica*, *Maerua oblongifolia*, *Crateva adansonii* (Capparaceae).

Distribution: Subspecies:

C. n. evagete (Cramer, [1779]): Western Ghats: Gujarat southwards to Kerala. Rajasthan, Delhi, Haryana, Madhya Pradesh, Chhattisgarh, Odisha, W. Bengal. Madhya Pradesh, Odisha, Rajasthan, West Bengal, Jharkhand, Andhra Pradesh.

Lesser Gull *Cepora nadina* (Lucas, 1852)

Images: UN and UP by Raju Kasambe

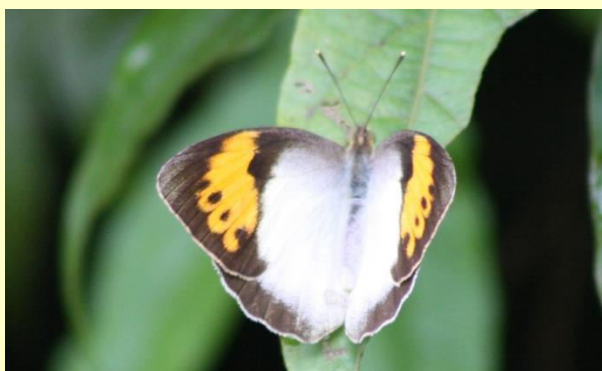
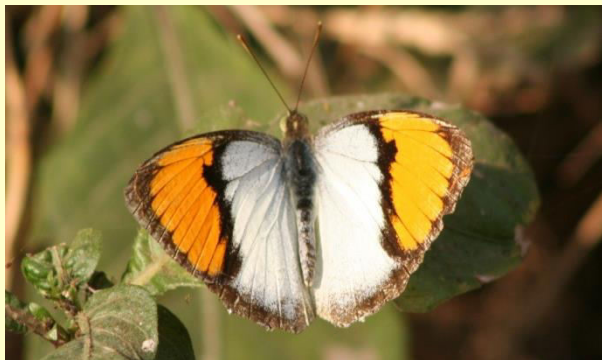
Wing span: 55–65mm.

Larval Host Plants:

Capparis cleghornii, *C. baducca*, *C. moonii*, *C. roxburghii* (Capparaceae).

Distribution: Subspecies:

C. n. remba (Moore, [1858]): Western Ghats: Gujarat southwards to Kerala.
Recent records mostly from Phansad southwards.

White Orange Tip *Ixias marianne* (Cramer, 1779)

Images: Clockwise from top left: Male UP; Male UN, Female UP, all by Raju Kasambe

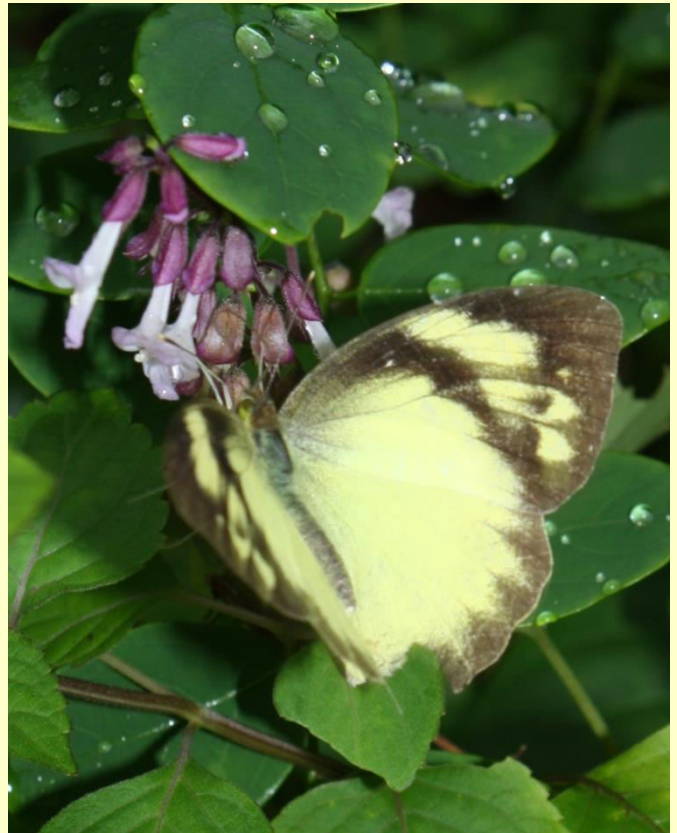
Wing span: 50–55mm.

Larval Host Plants:

Capparis decidua, *C. divaricata*, *C. grandis*, *C. sepiaria*, *Cadaba fruticosa* (Capparaceae).

Distribution:

Throughout India excluding the North Eastern states and Jammu & Kashmir.

Yellow Orange Tip *Ixias pyrene* Linnaeus, 1764

Images: Clockwise from top left: Male UP, Yellow form UP and UN, all by Raju Kasambe

Wing span: 50–70mm.

Larval Host Plants

Capparis divaricata, *C. sepiaria*, *C. zeylanica* (Capparaceae).

Distribution: Subspecies:

I. p. sesia (Fabricius, 1777): Throughout mainland India.

Common Jezebel *Delias eucharis* (Drury, 1773)

Image: UN by Raju Kasambe

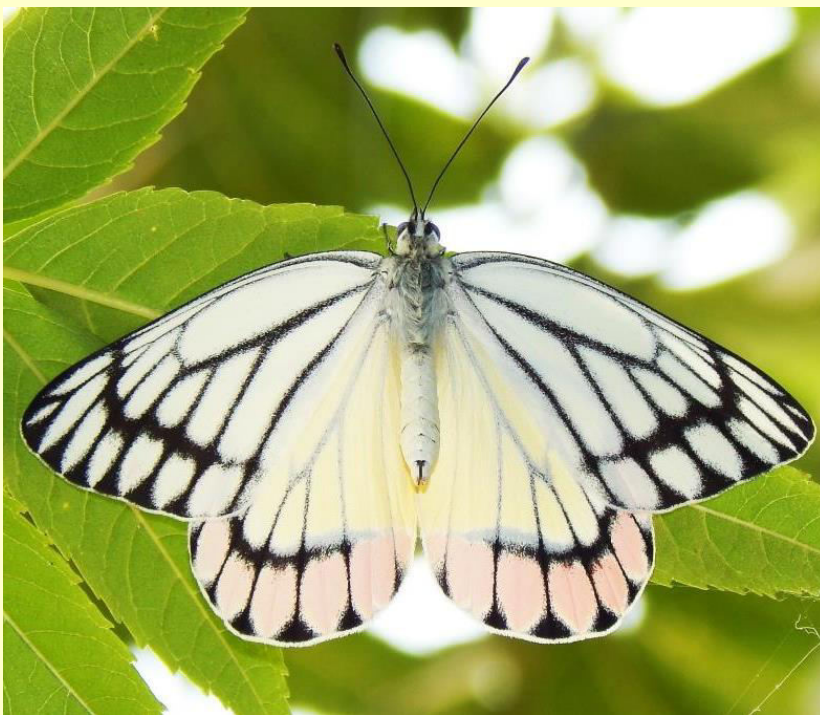


Image: UP by Sharan V.

Wing span: 66–83mm.

Larval Host Plants:

Butea monosperma (Fabaceae), *Dendrophthoe falcata*, *D. glabrescens*, *Loranthus* spp., *L. cordifolius*, *L. longiflorus*, *Helicanthes elasticus*, *Scurrula parasitica*, *Taxillus vestitus* (Loranthaceae); *Abelmoschus moschatus*, *Pterospermum acerifolium* (Malvaceae); *Viscum album* (Santalaceae).

Distribution:

Throughout India except Andaman & Nicobar Islands, Lakshadweep.

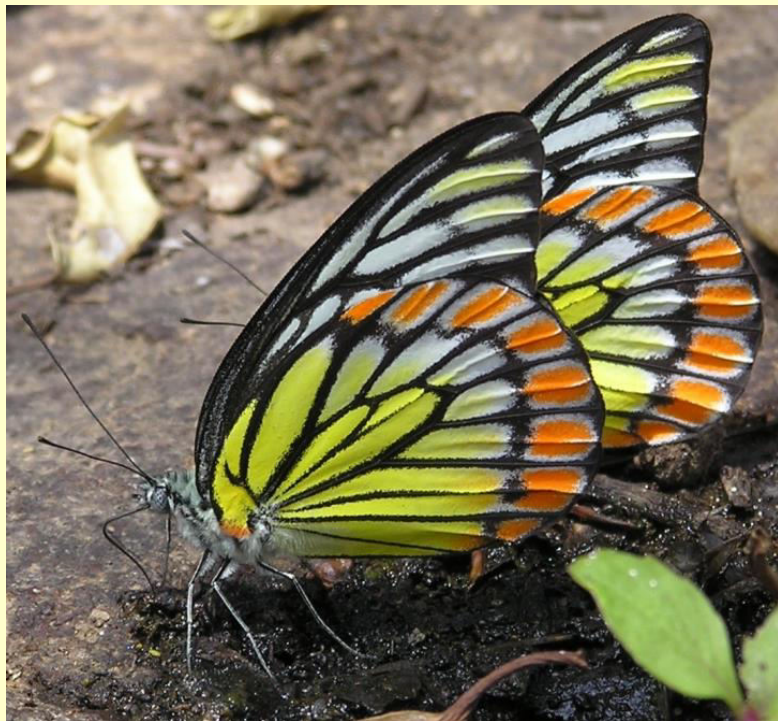
Painted Sawtooth *Prioneris sita* (C. & R. Felder, 1865)

Image: UN by Kishen Das



Image: UN by Anila Manalil

Wing span: 80–90mm.

Larval Host Plants:

Capparis tenera, *C. zeylanica*, *C. spinosa* (Capparaceae).

Endemicity: Endemic to South India and Sri Lanka.

Distribution:

Maharashtra to Kerala.

Spot Puffin *Appias lalage* (Doubleday, 1842)

Image: UN by Pranav Gokhale

Wing span: 55–80mm.

Larval Host Plants:

Data deficient.

Distribution:

A. l. lalage (Doubleday, 1842): Western Ghats: Kerala and Tamil Nadu.
Uttarakhand to N.E. India;

Plain Puffin *Appias indra* (Moore, 1857)

Images: UN Male and UN Female, all by Sagar Sarang

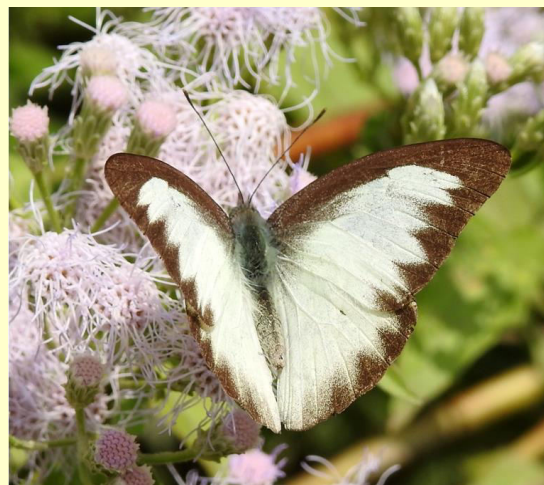
Wing span: 60–70mm.

Larval Host Plants:

Drypetes oblongifolia, *Putranjiva roxburghii* (Putranjivaceae).

Distribution: Subspecies:

A. i. shiva (Swinhoe, 1885): Western Ghats: Goa southwards to Karnataka, Kerala and Tamil Nadu.

Striped Albatross *Appias libythea* (Fabricius, 1775)

Images: Clockwise from top left: Female UN and Female UP, Male UP and Male UN all by Raju Kasambe

Wing span: 50–60mm.

Larval Host Plants: *Capparis brevispina*, *C. cleghornii*, *C. roxburghii*, *C. sepiaria*, *C. zeylanica*, *Crateva adansonii*, *C. religiosa* (Capparaceae), *Cleome rutidosperma* var. *burmannii* (Cleomaceae).

Distribution: Subspecies: *A. l. libythea* (Fabricius, 1775): Rajasthan eastwards to Odisha and southwards to Kerala (entire Western Ghats); Andaman & Nicobar Islands, Punjab, Uttar Pradesh, Uttarakhand.

Common Albatross *Appias albina* (Boisduval, 1836)

Image: Male UN by Kishen Das



Image: Female UN by Vijay Barve

Wing span: 60–75mm.

Larval Host Plants:

Crateva spp., *Crateva religiosa* (Capparaceae). *Drypetes oblongifolia*, *Putranjiva roxburghii*, *Drypetes venusta* (Putranjivaceae).

Distribution: Subspecies:

A. a. darada (C. & R. Felder, [1865]): Western Ghats: Maharashtra to Kerala; Odisha, Uttarakhand to N.E. India.

Subspecies:

A. a. swinhoi (Moore, 1905): Western Ghats: Gujarat to Kerala; Madhya Pradesh, Odisha.

Chocolate Albatross *Appias lyncida* (Cramer, 1777)

Image: UN by Nandish Songire

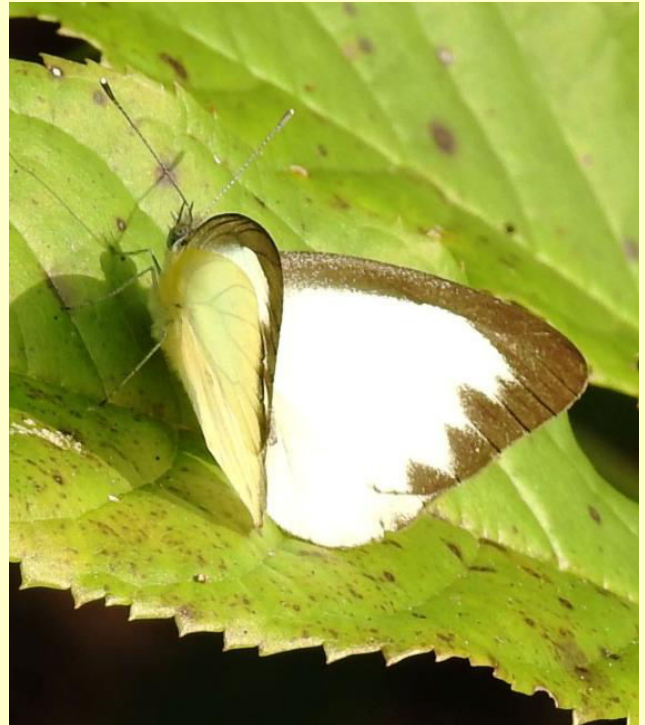


Image: UP by Raju Kasambe

Wing span: 55–70mm.

Larval Host Plants:

Brassica oleracea, *Rorippa indica* (Brassicaceae); *Capparis baducca*, *C. cleghornii*, *C. micracantha*, *C. roxburghii*, *C. zeylanica*, *Crateva religiosa* (Capparaceae); *Gymnosporia* (Celastraceae); *Cleome spinosa* (Cleomaceae); *Bombax ceiba* (Bombacaceae); *Homonoia riparia* (Euphorbiaceae).

Distribution: Subspecies:

A. l. latifasciata Moore, 1881: Western Ghats: Maharashtra to Kerala.

Indian Albatross *Appias wardii* (Moore, [1884])**(Syn. Lesser Albatross)**

Image: UN by Haneesh K.M.

Wing span: 35–50mm.

Larval Host Plants:

Capparis baducca (Capparaceae), *Drypetes venusta* (Putranjivaceae).

Distribution:

Western Ghats: Maharashtra to Kerala.

Endemicity: Endemic to Western Ghats.

Psyche *Leptosia nina* (Fabricius, 1793)



Images: UN and UP by Raju Kasambe

Wing span: 35–50mm.

Larval Host Plants:

Capparis spp., *C. baducca*, *C. spinosa*, *C. zeylanica*, *Crateva adansonii*, *Crateva religiosa* (Capparaceae); *Azima tetraantha* (Salvadoraceae); *Cleome rutidosperma* var. *burmannii*, *C. viscosa* (Cleomaceae).

Distribution: Subspecies:

L. n. nina (Fabricius, 1793): Throughout India east of Punjab, including the Andaman Islands.

Great Orange Tip *Hebomoia glaucippe* (Linnaeus, 1758)

Images: UP and UN by Raju Kasambe

Wing span: 80–100mm.

Larval Host Plants:

Capparis spp., *Capparis cleghornii*, *C. moonii*, *C. sepiaria*, *C. spinosa*, *C. zeylanica*, *Crateva adansonii*, *Crateva religiosa* (Capparaceae).

Distribution:

Subspecies: *H. g. australis* Butler, 1898: Western Ghats: Gujarat to Kerala.

Small Salmon Arab *Colotis amata* (Cramer, 1775)

Images: UN and UP by Raju Kasambe

Wing span: 35–50mm.

Larval Host Plants:

Subspecies: *C. a. modestus* (Butler, 1876): *Toddalia asiatica* (Rutaceae); *Azima tetracantha*, *Salvadora oleoides*, *S. persica* (Salvadoraceae).

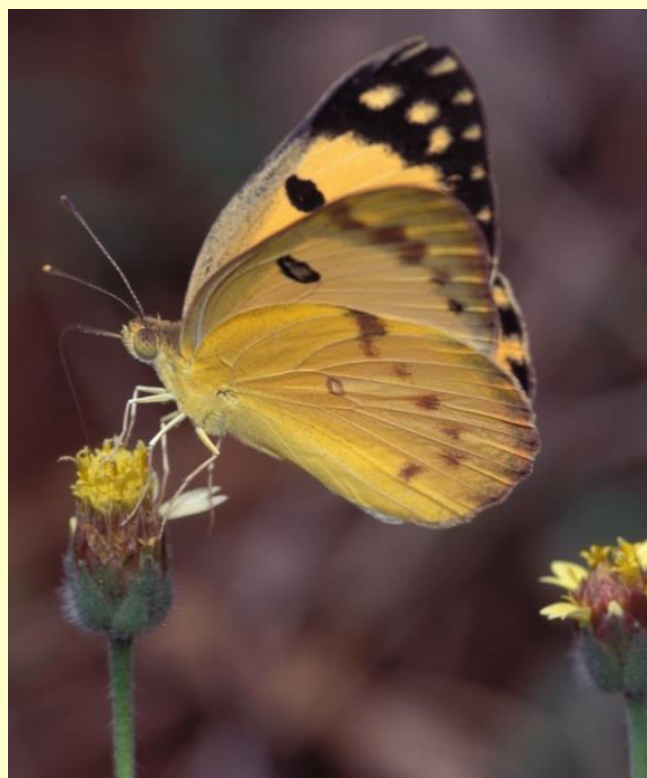
Subspecies: *C. a. amata* (Fabricius, 1775): *Azima tetracantha*, *Salvadora oleoides*, *S. persica* (Salvadoraceae).

Distribution:

Subspecies: *C. a. amata* (Fabricius, 1775): Delhi; Gujarat; Haryana; Maharashtra; Punjab; Rajasthan; Uttar Pradesh.

Subspecies: *C. a. modestus* (Butler, 1876): Andhra Pradesh; Karnataka; Kerala; Odisha; Tamil Nadu; W. Bengal.

Large Salmon Arab *Colotis fausta* (Olivier, 1804)



Images: UP and UN by Dr. M. S. Mayilavahanan

Wing span: 40–50mm.

Larval Host Plants:

Capparis spinosa, *Maerua cylindrocarpa*, *Maerua oblongifolia* (Capparaceae).

Distribution: Subspecies:

C. f. fausta (Olivier, 1804): Uttar Pradesh, Delhi, Punjab, Rajasthan, Haryana, Madhya Pradesh, Gujarat, Maharashtra.

Subspecies:

C. f. fulvia (Wallace, 1867): Western Ghats: Karnataka, Kerala, Tamil Nadu.

Little (Small) Orange-Tip *Colotis etrida* (Boisduval, 1836)

Images: UP and UN by Raju Kasambe

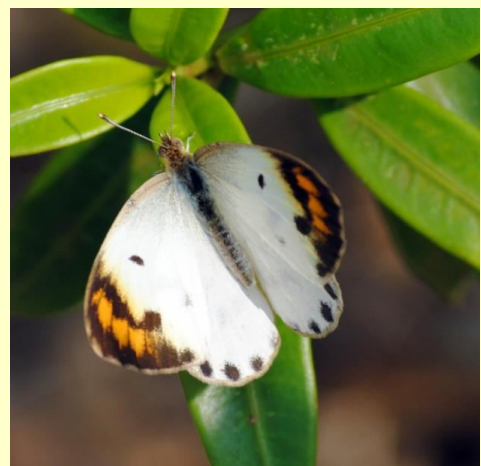
Wing span: 25–45mm.

Larval Host Plants:

Cadaba fruticosa, *Maerua oblongifolia* (Capparaceae); *Salvadora persica* (Salvadoraceae).

Distribution:

C. e. etrida (Boisduval, 1876): Entire mainland India. Not found in North-east and Islands. Entire Western Ghats.

Plain Orange Tip *Colotis aurora* (Cramer, [1780])

Images: Clockwise from left: UN, Male UP and Female UP all by Dattaprasad Sawant

Wing span: 40–45mm.

Larval Host Plants:

Cadaba fruticosa (Capparaceae).

Distribution:

C. a. aurora (Cramer, [1780]): Western Ghats: Gujarat; Maharashtra, Goa, Karnataka; Kerala, Tamil Nadu and Madhya Pradesh.

Crimson Tip *Colotis danae* (Fabricius, 1775)

Images: Clockwise from left: UN by J. M. Garg, Male UP by Raju Kasambe, Female UP by Chinmayi S.K.

Wing span: 40–50mm.

Larval Host Plants:

Cadaba fruticosa, *Maerua cylindrocarpa*, *M. oblongifolia*, *Capparis divaricata*, *C. sepiaria* (Capparaceae).

Distribution:

C. d. danae (Fabricius, 1775): Entire Western Ghats: Gujarat southwards to Kerala; Madhya Pradesh.

Dark Wanderer *Pareronia ceylanica* (C. & R. Felder, 1865)

Image: UP by Saish Borkar

Wing span: 65–80mm.

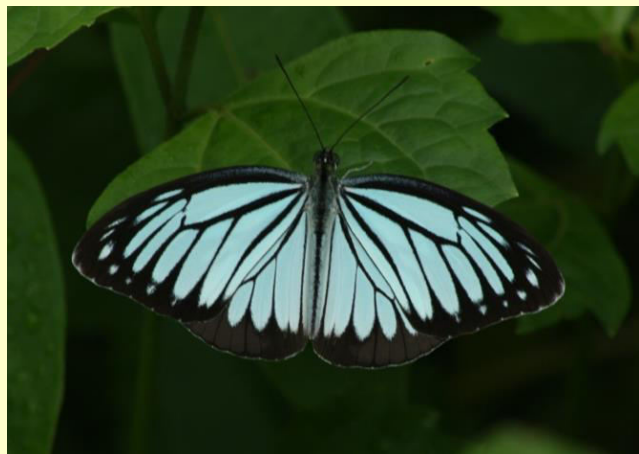
Larval Host Plant: *Capparis baducca* (Capparaceae).

Endemicity: Endemic to Western Ghats and Sri Lanka.

Distribution:

Subspecies: *P. c. ceylanica* (C. & R. Felder, 1865): Western Ghats: Southern Maharashtra (Amboli) southwards to Kerala.

Common Wanderer *Pareronia hippia* (Cramer, 1776)



Images: Left: Male UP, right Female UP by Raju Kasambe



Image: Left: Female *philomela* form UP and right Male UN by Raju Kasambe

Wing span: 65–85mm.

Larval Host Plants:

Capparis baducca, *C. zeylanica* (Capparaceae).

Distribution:

Throughout India except Jammu & Kashmir, Punjab and Rajasthan. Note: Varshney *et al.* (2015) consider it as a subspecies *P. valeria hippia* (Fabricius, 1787).

Common Emigrant *Catopsilia pomona* (Fabricius, 1775)

Images: Male UN and Female form *catilla* UN by Raju Kasambe



Image: Female UN by Raju Kasambe



Image: Female UN by J.M. Garg

Wing span: 55–80mm.

Larval Host Plants:

Bauhinia racemosa, *Butea monosperma*, *Cassia* spp., *C. fistula*, *Dalbergia latifolia*, *Senna tora*, *S. siamea*, *Sesbania grandiflora* (Fabaceae).

Distribution:

Throughout India. Entire Western Ghats.

Mottled Emigrant *Catopsilia pyranthe* (Linnaeus, 1758)

Images clockwise from top left: UN, UN and UP by Raju Kasambe

Wing span: 50–70mm.

Larval Host Plants: Fabaceae, *Cassia fistula*, *C. javanica*, *S. auriculata*, *S. tora*, *S. obtusifolia*, *S. occidentalis*, *S. sophora*, *S. sulfurea*, *Ormocarpum cochinchinense*, *Sesbania* spp., *S. bispinosa*, *S. grandiflora*,

S. sesban (Fabaceae); *Gnidia glauca* (Thymelaeaceae).

Distribution:

Throughout India. Entire Western Ghats.

Small Grass Yellow *Eurema brigitta* (Stoll, [1780])

Image: UN by Raju Kasambe

Wing span: 30–40mm.

Larval Host Plants:

Chamaecrista kleinii (Fabaceae).

Distribution:

E. b. rubella (Wallace, 1867): Throughout India including the Andaman and Nicobar Islands. Entire Western Ghats.

Spotless Grass Yellow *Eurema laeta* (Boisduval, 1836)

Image: WSF UN by Raju Kasambe



Image: DSF UN by Vedant Kasambe

Wing span: 30–45mm.

Larval Host Plants:

Cassia fistula, *Chamaecrista pumila* (Fabaceae).

Distribution: Subspecies:

E. l. laeta (Boisduval, 1836): Throughout India, west of Sikkim and West Bengal.
Entire Western Ghats.

Nilgiri Grass Yellow *Eurema nilgiriensis* Yata, 1990

Image: UN by Balakrishnan Valappil

Wing span: 30–45 mm.

Larval Host Plants:

Data deficient.

Distribution: Western Ghats: Karnataka, Kerala, Tamil Nadu.

Endemicity: Endemic to Western Ghats.

One-Spot Grass Yellow *Eurema andersoni* Moore, 1886

Image: UN by Balakrishnan Valappil

Wing span: 38-45mm.

Larval Host Plants:

Ventilago goughii (Rhamnaceae).

Distribution: Subspecies:

E. a. shimai Yata & Gaonkar, 1999: Maharashtra, Goa, Karnataka, Kerala and Tamil Nadu.

Common Grass Yellow *Eurema hecabe* (Linnaeus, 1758)

Image: UN by Raju Kasambe



Image: UN by L. Shyamal

Wing span: 40–50mm.

Larval Host Plants:

Fabaceae, *Acacia* spp., *Aeschynomene americana*, *Senna alata*, *S. tora*, *S. obtusifolia*, *Albizia* spp., *A. procera*, *A. saman*, *Caesalpinia* spp., *C. mimosoides*, *C. pulcherrima*, *C. sappan*, *Cassia* spp., *C. fistula*, *S. sesban*, *Smithia conferta*, *S. sensitive*, *Mimosa pudica*, *Moullava* spp., *Moullava spicata*, *Peltophorum pterocarpum*, *Pithecellobium dulce*, *Sesbania* spp., *S. bispinosa*, *S. grandiflora* (Fabaceae).

Distribution:

E. h. hecabe (Linnaeus, 1758): Throughout India, including the Andaman and Nicobar Islands.

Three-spot Grass Yellow *Eurema blanda* (Boisduval, 1836)

Image: UN by Vengolis



Image: UN by Raju Kasambe

Wing span: 40–45mm.

Larval Host Plants:

Acrocarpus fraxinifolius, *Albizia* spp., *Albizia lebbbeck*, *Bauhinia purpurea*, *Caesalpinia mimosoides*, *C. regia*, *C. sappan*, *Calliandra calothyrsus*, *Cassia* spp., *C. fistula*, *C. javanica* subsp. *nodosa*, *Delonix regia*, *Falcataria moluccana*, *Gliricidia sepium*, *Moullava spicata*, *Pithecellobium dulce*, *Sesbania* spp., *S. bispinosa*, *S. grandiflora*, *Xylia xylocarpa* (Fabaceae). *Camellia sinensis* (Theaceae).

Distribution: Subspecies:

E. b. davidsoni Moore, 1906: Gujarat to Kerala.

Nilgiri Clouded Yellow *Colias nilagiriensis* (C. & R. Felder, 1859)

Image: UN by Anila Manalil

Wing span: 45–55mm.

Larval Host Plants:

Paroetus communis, *Trifolium* spp. (Fabaceae).

Distribution:

Kerala and Tamil Nadu.

Endemicity: Endemic to Western Ghats.

Family Facts

Riodinidae: Judies and Punches

Earlier, the butterflies belonging to this family were included in the family Lycaenidae. We have only two species of Judies in Western Ghats in Southern India. These are Straight Plum Judy *Abisara echerius* and Two-spot Plum Judy *Abisara bifasciata*.

Punches are not found in Western Ghats.

Judies always keep their wings half open over the back due to their inability to close them completely. They have smaller non-functional forelegs. They like bird droppings and prefer shaded areas and undergrowth. They love rotten or overripe fruits and bird droppings. Their eggs are white and dome-shaped. The males do not have scent scales.

Two-spot Plum Judy *Abisara bifasciata* Moore, 1877

Images: UN and UP by Raju Kasambe

Wing span: 40–50 mm.

Larval Host Plants:

Distribution: Subspecies:

A. b. suffusa Moore, 1882. Western Ghats: Gujarat southwards to Karnataka and Tamil Nadu; eastwards to West Bengal; Himachal Pradesh to N.E. India.

Note: See the next page for the similar looking Plum Judy *Abisara echerius* (Stoll, 1790) (Syn. Straight Plum Judy) (Subspecies: *A. e. prunosa* Moore, 1879).

Plum Judy *Abisara echerius* (Stoll, [1790])
(Straight Plum Judy)



Image: UN by Sagar Sarang

Wing span: 40–50 mm.

Larval Host Plants: *Ardisia* spp., *Maesa indica* and *Embelia robusta*, *R. laeta* (Family Primulaceae).

Distribution: Subspecies: *A. e. prunosa* Moore, 1879. Western Ghats in Kerala and Tamil Nadu. Also reported from Mumbai and Mizoram.

Family Facts

Lycaenidae: Blues

Most butterflies belonging to the family Lycaenidae has blue uppersides. The butterflies are generally characterized by: 1) small size, 2) reduced forelegs in males but full-sized forelegs in females; thus they use only the remaining four legs. Females have normal six legs. 3) A slightly different pattern of wing veins.

Many of the blues have lobes to their hind wings. Many have short or long fluffy tails to their hind wings.

Eggs generally appear round and flattened like turbans. Caterpillars generally are small, shaped like slugs, and hairy. The caterpillars of many of the species of blues have a dorsal secretory organ which produces a sugary solution which attracts to ants. The ants feed on the solution and in turn protect the caterpillar from predators (a symbiotic behavior referred to as "tending"). Pupae are generally small and round, may have a silk girdle, and are located near or on the ground. Generally no cocoon is formed.

Caterpillars of some species of Lycaenidae are insectivorous, feeding on aphids or scale insects.

Common Apefly *Spalgis epius* (Westwood, 1852)

Image: UN by Raju Kasambe



Image: UP by Sanket Mhatre

Wing span: 20–30 mm.

Larval Host Plants:

Caterpillars are carnivorous, feeding largely on mealy bugs in the Western Ghats (Coccidae). *Mangifera indica* (Anacardiaceae).

Distribution: Subspecies:

S. e. epius (Westwood, 1852): Uttarakhand to N.E. India; Gujarat to Kerala and east to W. Bengal.

Red Pierrot *Talica n. nyseus* (Guérin-Meneville, 1843)

Image: UN Raju Kasambe

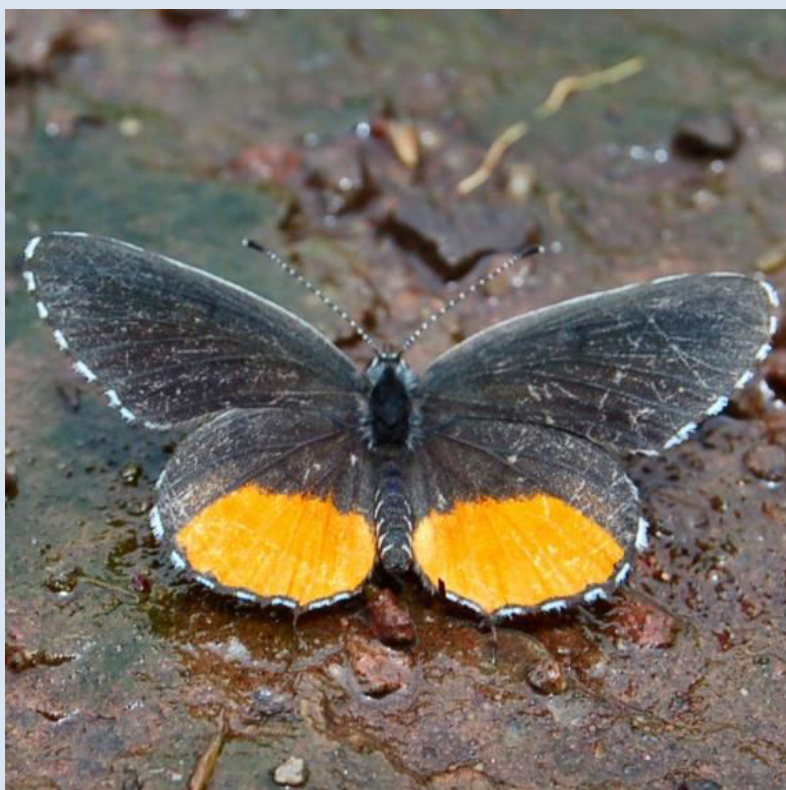


Image: UP by Ravi Vaidyanathan

Wing span: 30–35 mm.

Larval Host Plants:

Kalanchoe spp., *K. blossfeldiana*, *K. calycinum*, *K. laciniata*, *Bryophyllum delagoense*, *B. pinnatum* (Crassulaceae).

Distribution: Subspecies:

T. n. nyseus (Guerin-Meneville, 1843): Maharashtra to Kerala, eastward to Andhra Pradesh; Himachal Pradesh; Uttarakhand; Uttar Pradesh; Delhi.

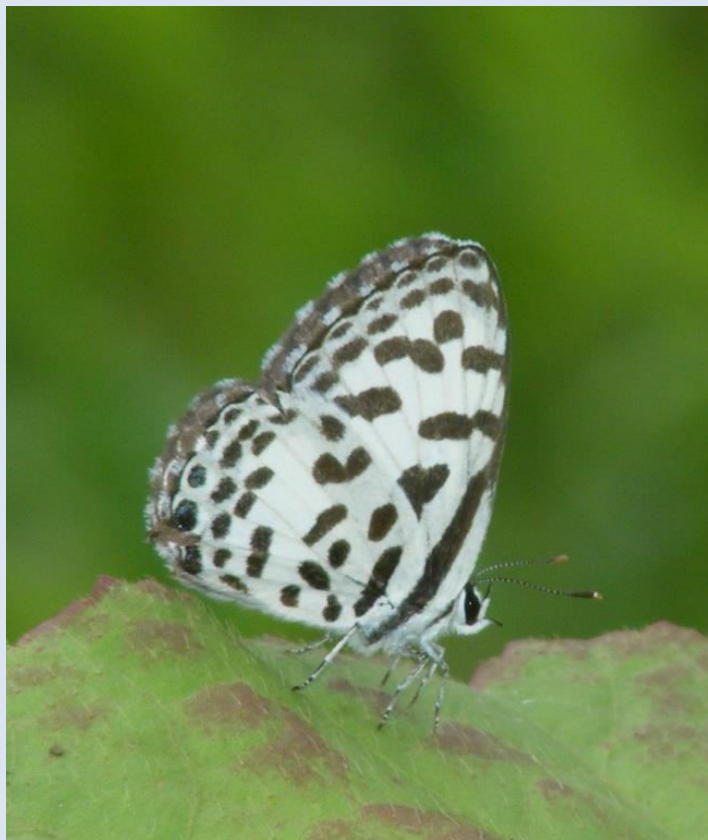
Common Pierrot *Castalius rosimon* (Fabricius, 1775)

Image: UN and UP by Raju Kasambe

Wing span: 24–34 mm.

Larval Host Plants:

Ziziphus jujuba, *Ziziphus oenopolia*, *Ziziphus rugosa*, *Ziziphus xylopyrus* (Rhamnaceae).

Distribution:

C. r. rosimon (Fabricius, 1775): Throughout India including Andaman & Nicobar Islands.

Dark Pierrot *Tarucus ananda* (de Nicéville, 1884)

Image: UN by Raju Kasambe



Image: UP by Chinmayi S.K.

Wing span: 22–28 mm.

Larval Host Plants:

Dendrophthoe falcata, *Loranthus* spp. (Loranthaceae), *Ziziphus oenopolia*,
Ziziphus xylopyrus (Rhamnaceae).

Distribution:

Maharashtra to Kerala; Sikkim to N.E. India.

Angled Pierrot *Caleta decidia* (Hewitson, 1876)

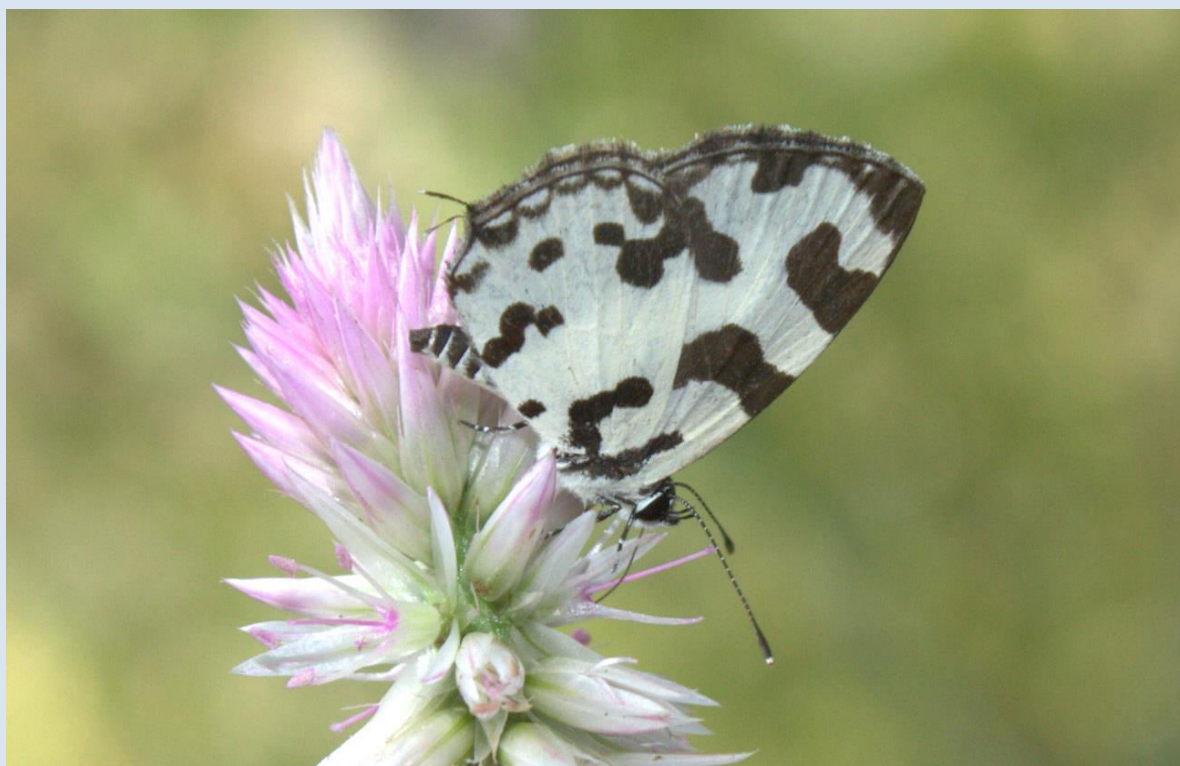


Image: UN by Raju Kasambe

Wing span: 26–32 mm.

Larval Host Plants:

Ziziphus oenopolia, *Ziziphus rugosa* (Rhamnaceae).

Distribution:

C. d. decidia (Hewitson, 1876): Peninsular India; Sikkim to N.E. India.

Banded Blue Pierrot *Discolampa ethion* (Westwood, 1851)

Image: UN by Raju Kasambe

Wing span: 26–30 mm.

Larval Host Plants:

Ziziphus jujuba, *Z. oenopolia*, *Z. xylopyrus* (Rhamnaceae).

Distribution:

Subspecies: *D. e. ethion* (Westwood, 1851): Andaman & Nicobar Is. (Andamans); Gujarat to Kerala; Uttarakhand to N.E. India.

Spotted Pierrot *Tarucus callinara* Butler, 1886

Image: UN by Raju Kasambe

Wing span: 24–26 mm.

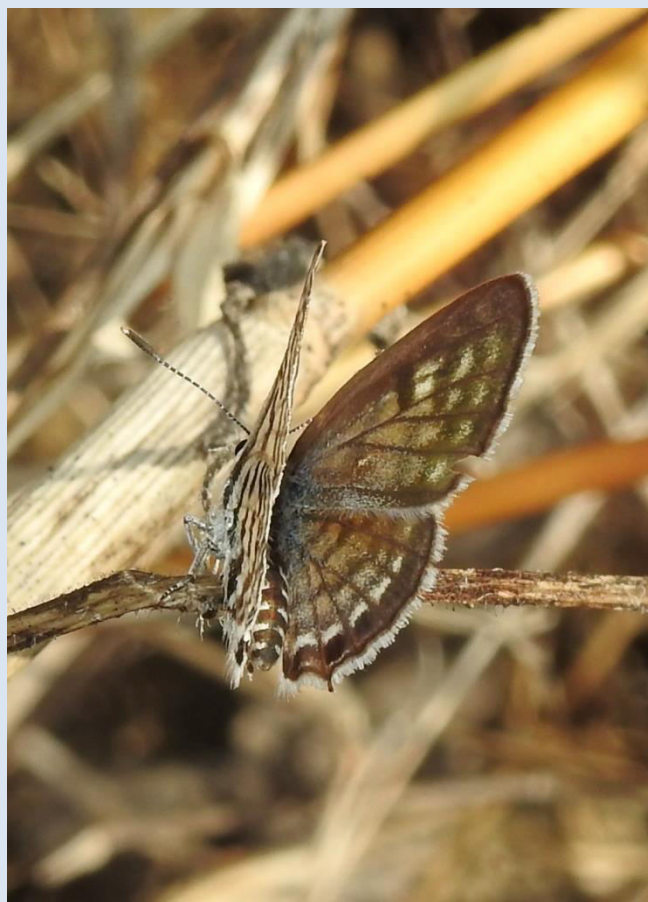
Larval Host Plants:

Ziziphus jujuba (Rhamnaceae).

Distribution:

Goa to Kerala; Himachal Pradesh to West Bengal and Chhattisgarh.

Pointed Pierrot *Tarucus indica* Evans, 1932
(Syn. Indian Pointed Pierrot)



Images: UN and UP by Raju Kasambe

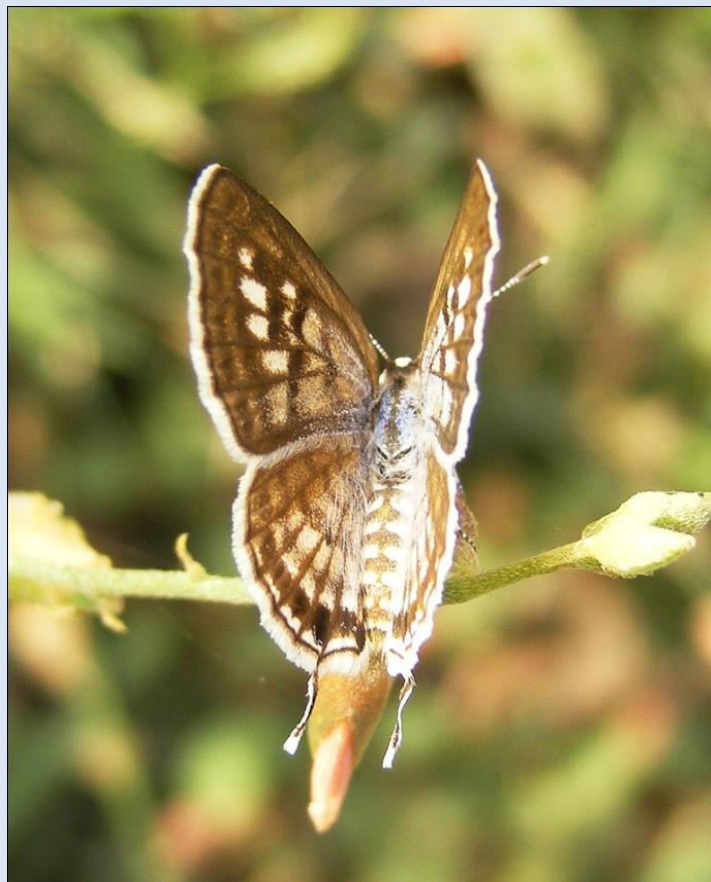
Wing span: 22–30 mm.

Larval Host Plants:

Ziziphus jujuba, *Z. nummularia* (Rhamnaceae).

Distribution: From Rajasthan southwards to Tamil Nadu and east to West Bengal; Assam

Striped Pierrot *Tarucus nara* (Kollar, 1848)



Images: UN and UP by Raju Kasambe

Wing span: 23–28 mm.

Larval Host Plants:

Ziziphus jujuba, *Z. nummularia* (Rhamnaceae).

Distribution:

Throughout India excluding Jammu & Kashmir; Rajasthan and N.E. India.

Black-spotted Pierrot *Tarucus balkanicus nigra* (Freyer, 1844)
(Syn. Balkan Pierrot)



Images: UN and UP by Raju Kasambe

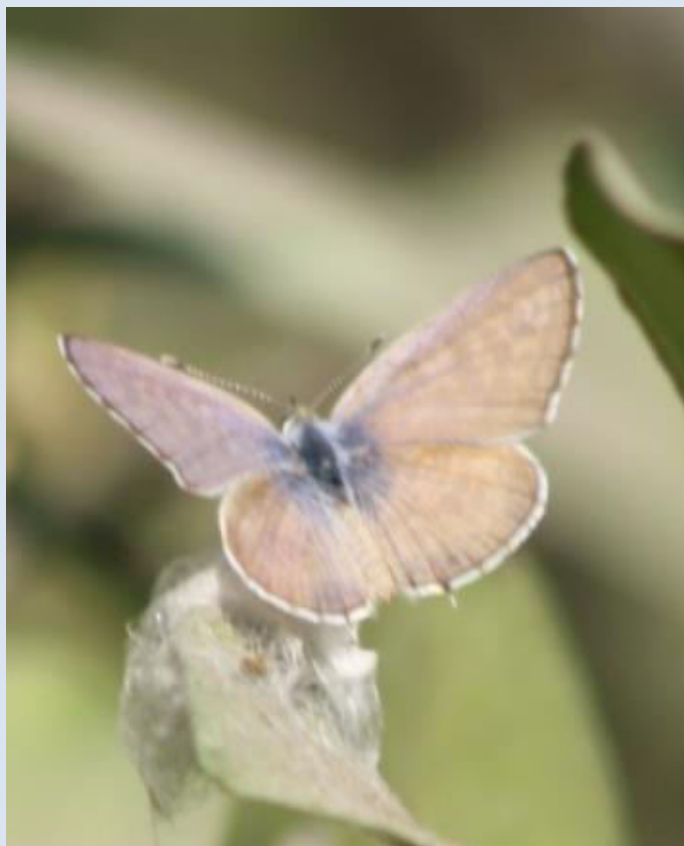
Wing span: 23–28 mm.

Larval Host Plants:

Ziziphus jujuba, *Z. nummularia* (Rhamnaceae).

Distribution:

T. b. nigra Bethune-Baker, [1918]: India north of Maharashtra to West Bengal.

Zebra Blue *Leptotes plinius* (Fabricius, 1793)

Images: UN and UP by Raju Kasambe

Wing span: 22–30 mm.

Larval Host Plants:

Abrus precatorius, *Albizia lebbeck*, *Dalbergia lanceolaria*, *Indigofera* spp., *Mimosa* spp., *Sesbania bispinosa* (Fabaceae); *Dyerophytum indicum*, *Plumbago* spp., *Plumbago auriculata*, *Plumbago zeylanica* (Plumbaginaceae).

Distribution: *L. p. plinius*:

Throughout India except Jammu & Kashmir.

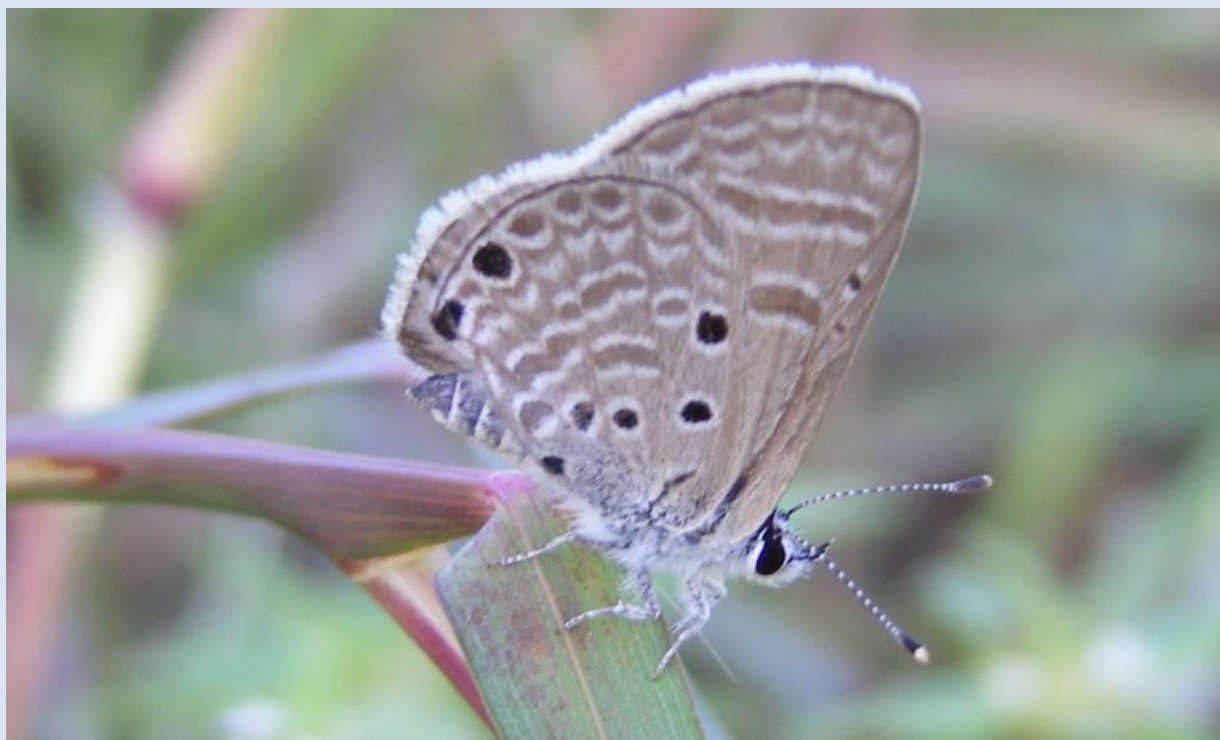
Bright Babul Blue *Azanus ubaldus* (Stoll, [1782])

Image: UN by Raju Kasambe

Wing span: 20–25 mm.

Larval Host Plants:

Acacia leucophloea, *Acacia nilotica* (Fabaceae).

Distribution:

Throughout India except the N.E. states.

Dull Babul Blue *Azanus uranus* Butler, 1886



Image: UN by Raju Kasambe

Wing span: 20–25 mm.

Larval Host Plants:

Acacia catechu, *A. farnesiana*, *A. leucophloea*, *A. nilotica*, *A. senegal* (Fabaceae).

Distribution:

Throughout India except the N.E. states.

African Babul Blue *Azanus jesous* (Guérin–Méneville, 1849)



Image: UN by Raju Kasambe

Wing span: 21–26 mm.

Larval Host Plants:

Acacia farnesiana, *A. leucophloea* (Fabaceae).

Distribution:

A. j. gamra (Lederer, 1855): India except east of W. Bengal.

Quaker *Neopithecops zalmora* (Butler 1870)

Image: UN by Raju Kasambe

Wing span: 16–30 mm.

Larval Host Plants:

Glycosmis mauritiana, *G. pentaphylla* (Rutaceae).

Distribution: *N. z. dharm* (Moore, [1881]): Western Ghats: Gujarat to Kerala.

Malayan *Megisba malaya* (Horsfield, 1828)

Image: UN by Raju Kasambe

Wing span: 19–30 mm.

Larval Host Plants:

Mallotus philippensis, *M. repandus* (Euphorbiaceae); *Allophylus cobbe*, *Erioglossum* spp., *Hemigyrosa* spp., *Lepisanthes tetraphylla*, *Schleichera oleosa* (Sapindaceae).

Distribution: Subspecies:

M. m. thwaitesi Moore, [1881]: Western Ghats: Maharashtra to Kerala; Sikkim; South India to West Bengal. Single record from Arunachal Pradesh.

Common Hedge Blue *Acytolepis puspa* (Horsfield, 1828)

Image: WSF UN by L. Shyamal



Image: DSF UN by Raju Kasambe

Wing span: 28–35 mm.

Larval Host Plants:

Shorea roxburghii (Dipterocarpaceae); *Cratoxylum cochinchinense*, *Moullava spicata*, *Paracalyx scariosus*, *Peltophorum pterocarpum*, *Xylia xylocarpa* (Fabaceae); *Hiptage benghalensis*, *H. madablota* (Malpighiaceae); *Bridelia retusa*, *B. stipularis* (Phyllanthaceae); *Lepisanthes tetraphylla*, *Schleichera oleosa*, *S. trijuga* (Sapindaceae).

Distribution: Subspecies:

A. p. felderi Toxopeus, 1927: Western Ghats: Gujarat to Kerala.

Hampson's Hedge Blue *Acytolepis lilacea lilacea* (Hampson, 1889)

Image: UN by Hemant Ogale

Wing span: 29–32 mm.

Larval Host Plants:

Data deficient.

Distribution: Subspecies:

A. l. lilacea: Western Ghats: Karnataka; Kerala and Tamil Nadu.

White Hedge Blue *Udara akasa* (Horsfield, 1828)

Image: UN by Vinayaraj

Wing span: 26–30 mm.

Larval Host Plants:

Persicaria chinensis (Syn. *Polygonum chinense*) (Polygonaceae).

Distribution:

U. a. mavisa (Fruhstorfer, 1917): Western Ghats: Karnataka, Kerala and Tamil Nadu.

Plain Hedge Blue *Celastrina lavendularis* (Moore, 1877)

Image: UN by Anila Manalil

Wing span: 28–34 mm.

Larval Host Plants:

Data deficient.

Distribution: Subspecies:

C. l. lavendularis (Moore, 1877): Western Ghats: Karnataka; Kerala and Tamil Nadu.

White-disc Hedge Blue *Celatoxia albidisca* (Moore, [1884])

Images: UN and UP by Balakrishnan Valappil

Wing span: 32–38 mm.

Larval Host Plants:

Data deficient.

Distribution:

Western Ghats: From Southern Gujarat southwards to Kerala; Odisha.

Endemicity:

Endemic to Western Ghats.

Lime Blue *Chilades lajus* (Stoll, [1780])

Images clockwise from left: WSF UN and DSF UN by Raju Kasambe. Female UP by Sneha

Wing span: 26–30 mm.

Larval Host Plants:

Atalantia buxifolia, *A. racemosa*, *A. wightii*, *Chloroxylon swietenia*, *Citrus* spp., *C. aurantiifolia*, *C. limon*, *C. maxima*, *C. medica*, *C. sinensis*, *Glycosmis mauritiana*, *G. pentaphylla*, *Limonia acidissima*, *Naringi crenulata* (Rutaceae); *Tilia* spp. (Malvaceae).

Distribution:

C. l. lajus (Stoll, [1780]): Throughout India.

Indian Cupid *Everes lacturnus* (Godart, 1824)



Image: UN by Raju Kasambe

Wing span: 22–28 mm.

Larval Host Plants:

Lotus corniculatus (Fabaceae).

Distribution: Subspecies:

E. l. syntala Cantlie, 1963: Gujarat southwards to Andhra Pradesh and Kerala (entire Western Ghats).

Small Cupid *Chilades parrhasius* (Fabricius, 1793)

Image: UN and UP (female) by Raju Kasambe

Wing span: 20–25 mm.

Larval Host Plants:

Acacia spp., *A. nilotica*, *Dichrostachys cinerea* (Fabaceae).

Distribution:

C. p. parrhasius (Fabricius 1793): Rajasthan to Kerala (entire Western Ghats); eastwards to Uttar Pradesh; Himachal; Pradesh and Uttarakhand.

Dark Grass Blue *Zizeeria karsandra* (Moore, 1865)

Images clockwise from left: UN, Male UP by Raju Kasambe, Female UP by Anila Manalil

Wing span: 18–24 mm.

Larval Host Plants:

Amaranthus spinosus, *A. tricolor*, *A. viridis* (Amaranthaceae), *Geissaspis cristata*, *Zornia diphylla*, *Z. gibbosa* (Fabaceae), *Oxalis corniculata* (Oxalidaceae), *Polygonum plebeium* (Polygonaceae).

Distribution:

Throughout India; Andaman and Nicobar Islands.

Lesser Grass Blue *Zizina otis* (Fabricius, 1787)

Images clockwise from left: UN by Raju Kasambe, Male UP by Jeevan Jose, Female UP by Raju Kasambe

Wing span: 19–26 mm.

Larval Host Plants:

Amaranthus viridis (Amaranthaceae), *Alysicarpus vaginalis*, *Desmodium heterophyllum*, *D. triflorum*, *Sesbania bispinosa*, *Zornia diphylla*, *Z. gibbosa*, *Z. reticulata* (Fabaceae), *Tribulus terrestris* (Zygophyllaceae).

Distribution:

Z. o. indica (Murray, 1874): Throughout India as far east as Jharkhand.

Pale Grass Blue *Pseudozizeeria maha* (Kollar, 1844)

Images: UN and Male UP by Raju Kasambe

Wing span: 26–30 mm.

Larval Host Plants:

Nelsonia canescens, *Strobilanthes* spp. (Acanthaceae), *Tephrosia purpurea*, *Tephrosia subtriflora* (Fabaceae), *Oxalis corniculata* (Oxalidaceae), *Tribulus terrestris* (Zygophyllaceae).

Distribution: Subspecies:

P. m. ossa (Swinhoe 1885): Western Ghats: Maharashtra to Kerala and Andhra Pradesh.

Tiny Grass Blue *Zizula hylax* (Fabricius, 1775)

Image: UN by Raju Kasambe

Wing span: 16–22 mm.

Larval Host Plants:

Dipteracanthus prostratus, *Hygrophila auriculata*, *H. ringens*, *Nelsonia canescens*, *Phaulopsis dorsiflora*, *Ruellia tuberosa*, *R. tweediana* (Acanthaceae); Fabaceae, *Vicia* spp. (Fabaceae), *Lantana* spp. (Verbenaceae), *Tribulus terrestris* (Zygophyllaceae).

Distribution:

Throughout India; Andaman and Nicobar Islands.

Small Grass Jewel *Freyeria putli* (Kollar, [1844])

Image: UN and UP by Raju Kasambe

Wing span: 12–18 mm.

Larval Host Plants:

Heliotropium strigosum, *Trichodesma indicum* (Boraginaceae); *Crotalaria hebecarpa*, *Indigofera* spp., *I. astragalina*, *I. linnaei*, *Lotus corniculatus*, *Pisum sativum*, *Rhynchosia minima*, *Vicia* spp., *Zornia diphylla* (Fabaceae); *Oxalis corniculata* (Oxalidaceae).

Distribution:

South India; Himalaya from Uttarakhand to N.E. India.

Grass Jewel *Freyeria trochylus* (Freyer, 1845)

Image: UN by Firos A.K.

Wing span: 20–22 mm.

Larval Host Plants:

Crotalaria hebecarpa, *Indigofera* spp., *Lotus corniculatus*, *Pisum sativum*, *Rhynchosia minima*, *Vicia* spp., *Zornia diphylla* (Fabaceae); *Oxalis corniculata* (Oxalidaceae); *Heliotropium strigosum* (Boraginaceae).

Distribution:

South India; North India from Punjab to N.E. India.

Gram Blue *Euchrysops cnejus* (Fabricius, 1798)

Images clockwise from left: UN by Raju Kasambe, Male UP by Jeevan Jose, Female UP by Anila Manalil

Wing span: 25–33 mm.

Larval Host Plants:

Fabaceae, *Acacia* spp., *A. caesia*, *Vigna cylindrica*, *V. radiata*, *V. trilobata*, *V. unguiculata*, *Butea monosperma*, *Cajanus cajan*, *Canavalia ensiformis*, *Lablab purpureus*, *Desmodium oojeinense*, *Paracalyx scariosus*, *Phaseolus* spp., *Pisum sativum*, *Pueraria phaseoloides*, (Fabaceae).

Distribution: *Euchrysops c. cnejus*:
Throughout India.

Plains Cupid *Chilades pandava* (Horsfield, 1829)

Image: UN by Raju Kasambe



Image: UP by Sneha

Wing span: 25–33 mm.

Larval Host Plants:

Cycadaceae, *Cycas* spp., *C. circinalis*, *C. revoluta* (Cycadaceae); *Acacia* spp., *A. nilotica*, *Bauhinia divaricate*, *B. vahlii*, *B. variegata*, *Butea monosperma*, *Caesalpinia* spp., *Moullava spicata*, *Saraca asoca*, *Xylia xylocarpa* (Fabaceae); *Schleichera oleosa* (Sapindaceae); *Desmodium dalbergioides* (Fabaceae).

Distribution: *Chilades p. pandava*:

Throughout India.

Common Ciliate Blue *Anthene emolus* (Godart, 1824)

Image: UN by Rohith Sanjay

Wing span: 28–35 mm.

Larval Host Plants:

Mangifera indica (Anacardiaceae); *Combretum latifolium*, *Terminalia paniculata* (Combretaceae); *Cassia fistula*, *Saraca asoca* (Fabaceae); *Heynea trijuga* (Meliaceae); *Litchi chinensis* (Sapindaceae).

Distribution: Subspecies:

A. e. emolus (Godart, 1824): Bihar; Sikkim; Maharashtra southwards to Kerala and eastwards to West Bengal and N.E. India.

Pointed Ciliate Blue *Anthene lycaenina* (C. Felder, 1868)



Images clockwise from left: UN, Male UP and Female UP by Raju Kasambe

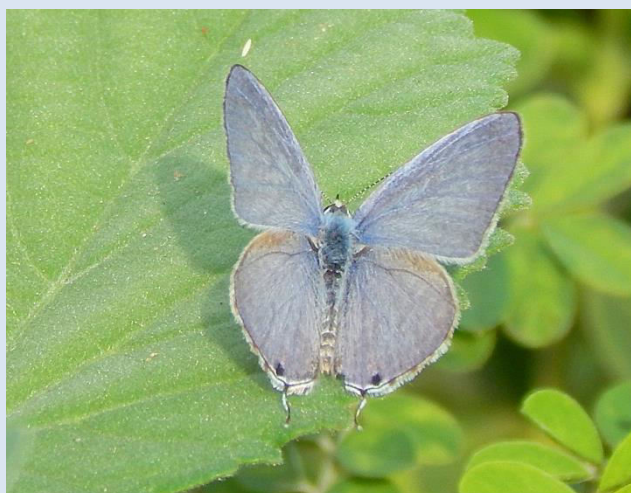
Wing span: 24–29 mm.

Larval Host Plants:

Leucaena leucocephala, *Acacia nilotica*, *A. pennata*, *Dalbergia latifolia*, *Moullava spicata*, *Pithecellobium dulce* (Fabaceae); *Buchanania axillaris*, *B. cochinchinensis* (Anacardiaceae); *Bridelia retusa* (Phyllanthaceae); *Putranjiva roxburghii* (Putranjivaceae); *Ventilago denticulata* (Rhamnaceae); *Allophylus cobbe* (Sapindaceae).

Distribution: Subspecies:

A. l. lycaenina (Felder, 1868): Gujarat southwards to Kerala and eastwards to Odisha and W. Bengal.

Forget-me-not *Catochrysops strabo* (Fabricius, 1793)

Images clockwise from left UN and Female UP by Raju Kasambe; Male UP by Sharan V.

Wing span: 25–35 mm.

Larval Host Plants:

Acacia spp., *Butea monosperma*, *Cajanus cajan*, *Desmodium oojeinense*, *Flemingia strobilifera*, *Paracalyx scariosus*, *Pueraria phaseoloides*, *Pongamia pinnata*, *Tephrosia purpurea*, *Vigna unguiculata* (Fabaceae); *Schleichera oleosa* (Sapindaceae).

Distribution:

C. s. strabo (Fabricius, 1793): Throughout India including Andaman & Nicobar Is.

Silver Forget-me-not *Catachrysops panormus* (C. Felder, 1860)

Image: UN by Parixit Kafley



Image: UP by Parixit Kafley

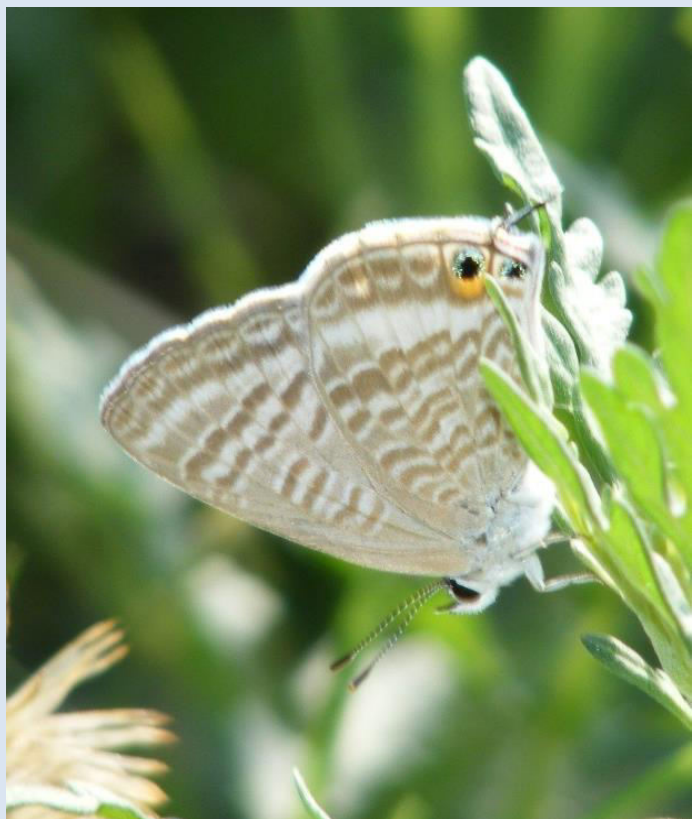
Wing span: 25–35 mm.

Larval Host Plants:

Cultivated legumes (Family Leguminosae).

Distribution: Subspecies:

C. p. exiguus (Distant, 1886): Western Ghats: Karnataka to Kerala; Sikkim to N.E. India.

Pea Blue *Lampides boeticus* (Linnaeus, 1767)

Images: UN and Female UP by Raju Kasambe

Wing span: 24–36 mm.

Larval Host Plants:

Fabaceae, *Abrus precatorius*, *Butea monosperma*, *Caesalpinia* spp., *Cajanus cajan*, *Crotalaria* spp., *C. capensis*, *C. juncea*, *C. micans*, *C. pallida*, *C. saltiana*, *Gliricidia sepium*, *Lablab purpureus*, *Lupinus* spp., *Melilotus indicus*, *Pisum* spp., *Pisum sativum*, *Pongamia pinnata*, *Pueraria phaseoloides*, *Vigna unguiculata*, *Xylia xylocarpa* (Fabaceae).

Distribution:

Throughout India including Andaman & Nicobar Islands.

Dark Cerulean *Jamides bochus* (Stoll, 1782)

Image: UN by Raju Kasambe

Wing span: 25–34 mm.

Larval Host Plants:

Bolusanthus spp., *Butea monosperma*, *Cajanus cajan*, *Crotalaria* spp., *Flemingia strobilifera*, *Gliricidia sepium*, *Millettia peguensis*, *Pongamia pinnata*, *Pueraria phaseoloides*, *Tephrosia candida*, *Vigna cylindrica*, *Xylia xylocarpa* (Fabaceae).

Distribution: Subspecies:

J. b. bochus (Stoll, [1882]): Andaman & Nicobar Is. (Andamans); throughout India.

Common Cerulean *Jamides celeno* (Cramer, 1775)

Images: WSF UN and DSF UN by Raju Kasambe

Wing span: 27–40 mm.

Larval Host Plants:

Abrus precatorius, *Cajanus albicans*, *Butea monosperma*, *Phaseolus adenanthus*, *Pongamia pinnata*, *Saraca asoca*, *Xylia xylocarpa* (Fabaceae); *Heynea trijuga*, *Trichilia hirta*, *T. trijuga* (Meliaceae); *Elettaria cardamomum* (Zingiberaceae).

Distribution: Subspecies:

J. c. aelianus (Fabricius, 1793): Western Ghats: Gujarat southwards to Kerala and eastwards to West Bengal; Uttarakhand to N.E. India.

Metallic Cerulean *Jamides alecto* Swinhoe, 1915

Image: UN by Vinayaraj

Wing span: 30–44 mm.

Larval Host Plants: *Boesenbergia rotunda*, *Curcuma aeruginosa*, *Elettaria cardamomum*, *Zingiber zerumbet* (Zingiberaceae).

Distribution: Subspecies:

Western Ghats: Maharashtra to Kerala; Jharkhand and N.E. India.

Large Four-Lineblue *Nacaduba pactolus* (C. Felder, 1860)

Image: UN by Ashok Sengupta

Wing span: 27–38 mm.

Larval Host Plants:

Entada rheedii (Fabaceae).

Distribution: Subspecies:

N. p. continentalis Fruhstorfer, 1916: Western Ghats: Maharashtra to Kerala; Sikkim to N.E. India.

Pale Four-Lineblue *Nacaduba hermus* (C. Felder, 1865)

Images: UN and UN by Hemand Ogale

Wing span: 30–35 mm.

Larval Host Plants:

Entada rheedii (Fabaceae).

Distribution: Subspecies:

N. h. sidoma Fruhstorfer, 1916: Western Ghats: Gujarat southwards to Kerala (recent records from southern Maharashtra southwards).

Transparent Six-Lineblue *Nacaduba kurava* (Moore, 1858)

Image: UN by Balakrishnan Valappil

Wing span: 30–38 mm.

Larval Host Plants:

Vateria indica (Dipterocarpaceae); *Caesalpinia bonduc* (Fabaceae); *Ardisia elliptica*, *A. solanacea*, *Embelia tsjeriam-cottam*, *Maesa indica* (Primulaceae); *Waltheria indica* (Malvaceae).

Distribution: Subspecies:

N. k. canaraica Toxopeus, 1927: Western Ghats: Gujarat to Kerala.

Opaque Six-Lineblue *Nacaduba beroe* Fruhstorfer, 1916



Images: UN by Vinayaraj and UP by Raju Kasambe

Wing span: 18–25 mm.

Larval Host Plants: *Caesalpinia bonduc*, *Moullava spicata* (Fabaceae); *Connarus wightii* (Connaraceae).

Distribution: Subspecies:

Nacaduba beroe gythion: Western Ghats: Maharashtra to Kerala; Sikkim to N.E. India.

Common Lineblue *Prosotas nora* (C. Felder, 1860)

Images: UN and UP by Raju Kasambe

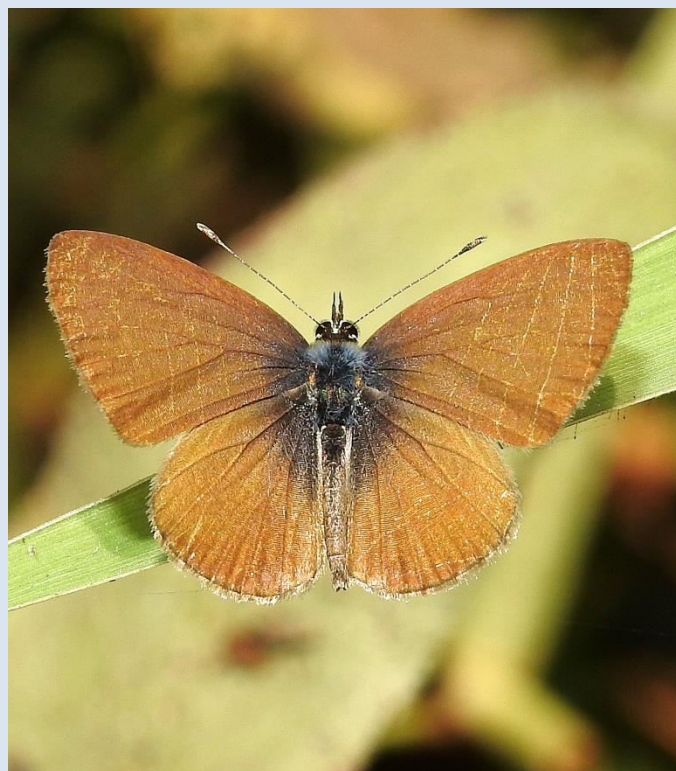
Wing span: 18–25 mm.

Larval Host Plants:

Mallotus philippensis (Euphorbiaceae), *Acacia* spp., *Acacia caesia*, *Acacia catechu*, *Acacia torta*, *Mimosa invisa*, *Pithecellobium dulce* (Fabaceae), *Allophylus cobbe* (Sapindaceae).

Distribution: Subspecies:

P. n. nora (C. Felder, 1860): Throughout India except arid regions.

Tailless Lineblue *Prosotas dubiosa* (Semper, 1879)

Images: UN and UP by Raju Kasambe

Wing span: 22–26 mm.

Larval Host Plants:

Mallotus philippensis (Euphorbiaceae); *Acacia* spp., *A. caesia*, *A. torta*, *Leucaena leucocephala*, *Lysiloma latisiliquum*, *Mimosa pudica*, *M. invisa*, *Pithecellobium dulce* (Fabaceae).

Distribution:

P. d. indica (Evans, [1925]): India including Andaman & Nicobar Islands (Andamans).

White-tipped Lineblue *Prosotas noreia* (R. Felder, 1868)

Image: UN by Divakar Thombre

Wing span: 22–28 mm.

Larval Host Plants:

Albizia lebbbeck, *Dalbergia lanceolaria* (Fabaceae).

Distribution:

P. n. hampsoni (de Niceville, 1885): Peninsular India as far north as Maharashtra; Uttarakhand to N.E.India.

Dingy Lineblue *Petrelaea dana* (De Nicéville, 1884)

Image: UN by Raju Kasambe

Wing span: 24–28 mm.

Larval Host Plants:

Terminalia catappa (Combretaceae).

Distribution:

Western Ghats: Maharashtra to Kerala; Uttarakhand to N.E. India; Jharkhand and Andaman Island.

Pointed Lineblue *Ionolyce helicon* (Moore, 1877)

Images: UN and UP by Balakrishnan Valappil

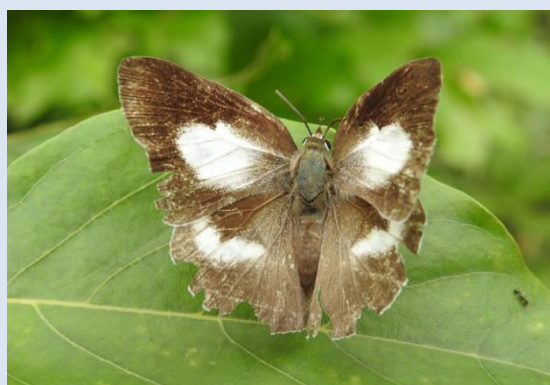
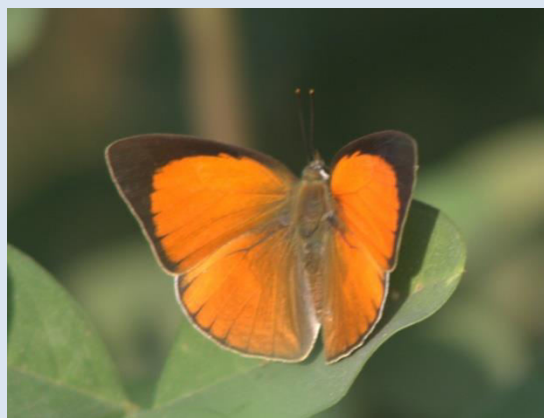
Wing span: 22–25 mm.

Larval Host Plants:

Data deficient.

Distribution: Subspecies:

I. h. viola: Western Ghats: Maharashtra southwards, Karnataka, Kerala and Tamil Nadu.

Indian Sunbeam *Curetis thetis* (Drury, 1773)

Images clockwise from left: UN, Male UP and Female UP by Raju Kasambe

Wing span: 40–48 mm.

Larval Host Plants:

Abrus precatorius, *Aganope thyrsiflora*, *Butea monosperma*, *Derris scandens*, *Pongamia pinnata*, *Xylia xylocarpa*, *Dendrolobium triangulare* (Fabaceae); *Heynea trijuga* (Meliaceae).

Distribution: Subspecies:

C. t. thetis (Drury, 1773): Western Ghats: Gujarat southwards to Kerala; eastwards to Odisha.

Siva (Shiva's) Sunbeam *Curetis siva* Evans, 1954



Image: UN by Vengolis

Wing span: 35–40 mm.

Larval Host Plants:

Ougeinia oojeinensis (*Desmodium oojeinense*) (Fabaceae).

Distribution:

Western Ghats: Goa southwards to Kerala.

Endemicity:

Endemic to Western Ghats.

Angled Sunbeam *Curetis acuta* Moore, 1877

Images clockwise from left: UN and Male UP by Raju Kasambe; Female UP by Ravi Vaidyanathan

Wing span: 35–42 mm.

Larval Host Plants:

Pongamia pinnata, *Butea monosperma* (Fabaceae).

Distribution:

C. a. dentata Moore, 1879: Western Ghats: Gujarat to Kerala; Himachal Pradesh to N.E. India; Madhya Pradesh to Odisha.

Silverstreak Blue *Iraota timoleon* (Stoll, 1790)

Image: UN by Divakar Thombre

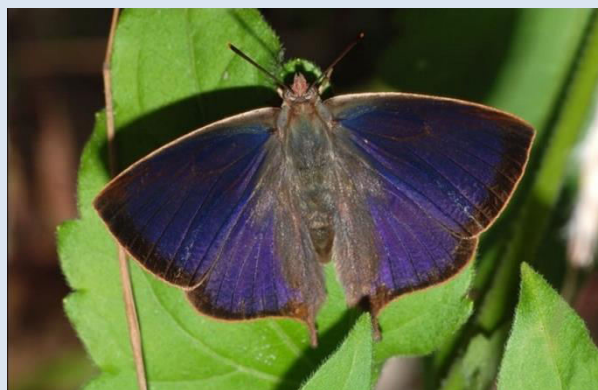
Wing span: 40–48 mm.

Larval Host Plants:

Punica granatum (Lythraceae), *Ficus benghalensis*, *F. racemosa*, *F. religiosa*, *F. tsjahela* (Moraceae).

Distribution: Subspecies:

I. t. arsaces Fruhstorfer, 1907: Gujarat to Madhya Pradesh and southwards Kerala (entire Western Ghats).

Purple Leaf Blue *Amblypodia anita* Hewitson, 1862

Images clockwise from left: UN and Female UP by Raju Kasambe; Male UP by Shyam Ghate

Wing span: 45–52 mm.

Larval Host Plants:

Olax imbricata, *O. scandens* (Olacaceae).

Distribution: Subspecies:

A. n. dina Fruhstorfer, 1907: Gujarat to Kerala (entire Western Ghats) and West Bengal; Assam.

Many-tailed Oakblue *Thaduka multicaudata* (Moore, 1879)

Image: UN by Prashanth Bhat

Wing span: 40–48 mm.

Larval Host Plants:

Mallotus nudiflorus (Euphorbiaceae).

Distribution:

T. m. kanara Evans, 1925: Western Ghats: Maharashtra to Kerala.

Large Oakblue *Arhopala amantes* (Hewitson, 1862)

Image: UN by Raju Kasambe



Image: UP by Balakrishnan Valappil

Wing span: 45–57 mm.

Larval Host Plants:

Terminalia alata, *T. catappa*, *T. elliptica*, *T. paniculata*, *T. tomentosa* (Combretaceae), *Hopea jucunda*, *H. ponga*, *Shorea robusta* (Dipterocarpaceae), *Xylia xylocarpa* (Fabaceae), *Lagerstroemia microcarpa*, *L. speciosa* (Lythraceae), *Syzygium cumini* (Myrtaceae).

Distribution: Subspecies:

A. a. amantes (Hewitson, 1862): Western Ghats: Gujarat to Andhra Pradesh and southwards to Kerala.

Indian Oakblue *Arhopala atrax* (Hewitson, 1862)



Image: UN by Sayan Sanyal

Wing span: 34–40 mm.

Larval Host Plants:

Shorea robusta (Dipterocarpaceae).

Distribution:

Peninsular India, Jammu & Kashmir to N.E. India.

Aberrant Bushblue *Arhopala abseus* (Hewitson, 1862)

(Syn. Aberrant Oakblue)



Image: UN by Uajith

Wing span: 32–35 mm.

Larval Host Plants:

Shorea robusta (Dipterocarpaceae).

Distribution:

A. a. indicus Riley, 1923: Western Ghats: Goa, Karnataka, Kerala, Tamil Nadu; Uttarakhand to N.E. India.

Centaur Oakblue *Arhopala centaurus* (Fabricius, 1775)

Image: UN by J.M. Garg

Wing span: 53–62 mm.

Larval Host Plants:

Terminalia alata, *T. paniculata*, *T. tomentosa* (Combretaceae). *Hopea* spp., *H. ponga* (Dipterocarpaceae), *Xylia xylocarpa* (Fabaceae), *Lagerstroemia* spp., *L. microcarpa*, *L. speciosa* (Lythraceae), *Schleichera oleosa* (Sapindaceae).

Distribution: Subspecies:

A. c. pirama (Moore, [1881]): Western Ghats: Maharashtra to Kerala.

Tamil Oakblue *Arhopala bazaloides* (Hewitson, 1878)

Image: UN by Vinayaraj

Wing span: 44–47 mm.

Larval Host Plants:

Hopea ponga (Dipterocarpaceae).

Distribution:

A. b. bazaloides (Hewitson, 1878): Western Ghats: Maharashtra to Kerala; Sikkim to N.E. India.

Kanara Oakblue *Arhopala alea* (Hewitson, 1862)

(Syn. *Arhopala canaraica* (Moore, 1884))



Image: UN by Haneesh K.M.

Wing span: 44–45mm.

Larval Host Plants:

Terminalia paniculata (Combretaceae), *Hopea* spp. (Dipterocarpaceae), *Syzygium salicifolium* (Myrtaceae).

Distribution:

Western Ghats: Goa southwards (Karnataka, Tamil Nadu and Kerala).

Endemicity:

Endemic to Western Ghats.

Common Acacia Blue *Surendra quercetorum* (Moore, 1858)

Image: UN by Raju Kasambe

Wing span: 30–40 mm.

Larval Host Plants:

Acacia caesia, *A. megaladena*, *A. pennata*, *A. polyacantha*, *A. torta*, *Albizia odoratissima* (Fabaceae).

Distribution: Subspecies:

Surendra quercetorum biplagiata Butler, 1883: Western Ghats: Gujarat southwards.

Silver-streaked Acacia Blue *Zinaspa todara* (Moore, 1884)

Image: UN by Anila Manalil

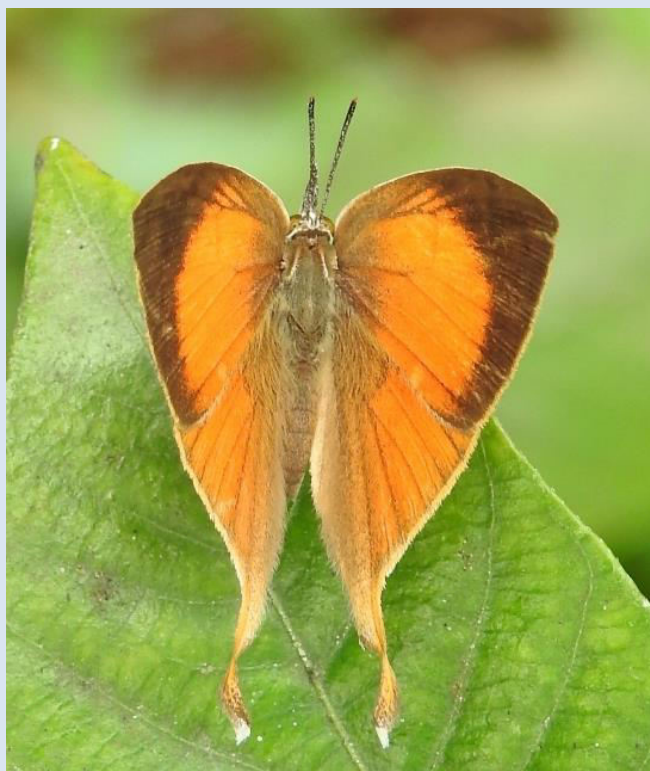
Wing span: 34–38 mm.

Larval Host Plants:

Acacia spp., *Acacia torta* (Fabaceae).

Distribution:

Z. t. todara (Moore, [1884]): Western Ghats: Goa southwards to Kerala.

Yamfly *Loxura atymnus* (Stoll, 1780)

Images: UN and UP by Raju Kasambe

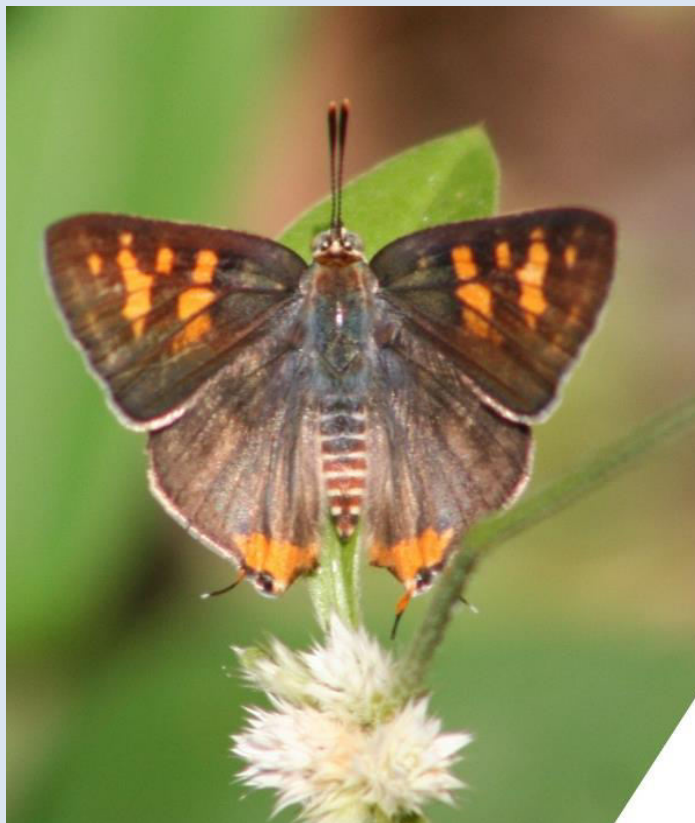
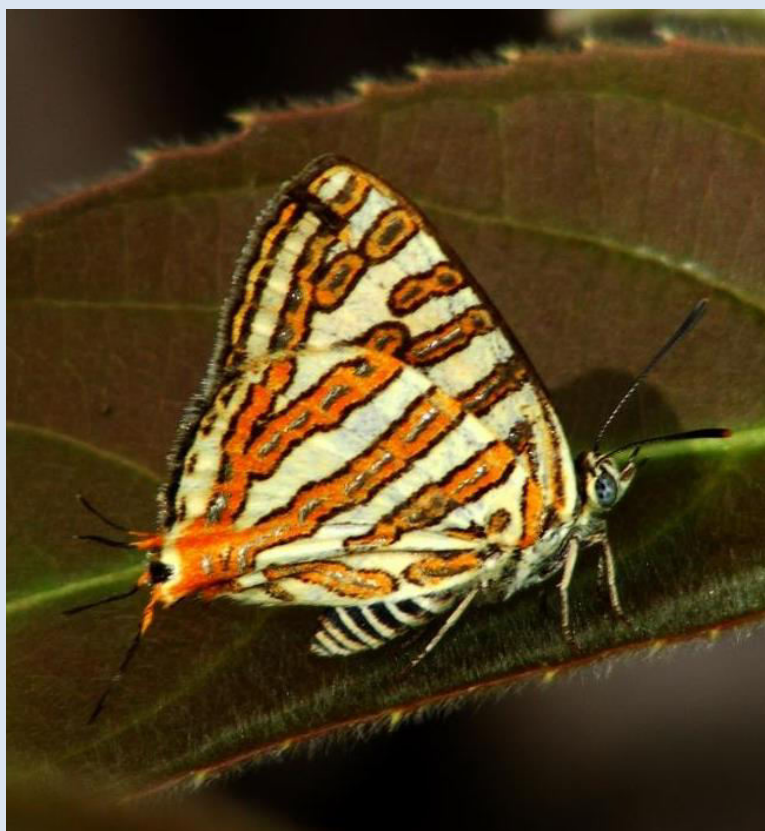
Wing span: 36–40 mm.

Larval Host Plants:

Dioscorea spp., *Dioscorea pentaphylla* (Dioscoreaceae), *Smilax zeylanica* (Smilacaceae).

Distribution: Subspecies:

L. a. atymnus (Stoll, 1780): Maharashtra and Madhya Pradesh to Kerala; Uttarakhand to West Bengal & N. E. India.

Common Silverline *Spindasis vulcanus* (Fabricius, 1775)

Images: UN and UP Raju Kasambe

Wing span: 26–34 mm.

Larval Host Plants:

Carissa carandas (Apocynaceae), *Cadaba fruticosa* (Capparaceae), *Dioscorea wallichii* (Dioscoreaceae), *Diospyros melanoxylon*, *Diospyros montana* (Ebenaceae). *Cassia fistula* (Fabaceae). *Clerodendrum indicum*, *Volkameria inermis* (Lamiaceae), *Woodfordia floribunda* (Lythraceae), *Ziziphus jujuba*, *Ziziphus rugosa* (Rhamnaceae), *Canthium coromandelicum* (Rubiaceae). *Allophylus cobbe* (Sapindaceae).

Distribution:

S. v. vulcanus (Fabricius, 1775): Throughout India.

Long-banded Silverline *Spindasis lohita* (Horsfield, 1829)

Images: UN and UP by Raju Kasambe

Wing span: 30–42 mm.

Larval Host Plants:

Carissa carandas (Apocynaceae), *Terminalia paniculata* (Combretaceae), Convolvulaceae, *Dioscorea pentaphylla* (Dioscoreaceae), *Xylia xylocarpa* (Fabaceae), *Ixora brachiata*, *Smilax zeylanica* (Smilacaceae).

Distribution: Subspecies:

S. l. lazularia (Moore, [1881]): Maharashtra to Kerala.

Plumbeous Silverline *Spindasis schistacea* (Moore, 1881)

Images: UN and UP by Raju Kasambe

Wing span: 28–37 mm.

Larval Host Plants:

Quisqualis spp., *Combretum indicum* (Combretaceae), *Antidesma ghaesembilla* (Phyllanthaceae), *Acacia caesia*, *A. pennata* (Fabaceae), *Sorbaria sorbifolia* (Rosaceae).

Distribution:

Western Ghats: Gujarat southwards to Kerala.

Lilac Silverline *Apharitis lilacinus* (Moore, 1884)
(Syn. *Cigaritis acamas*)



Images clockwise from top left: Male UN, Male UP, Female UP and Female UN all by Ashok Sengupta

Wing span: 19–30 mm.

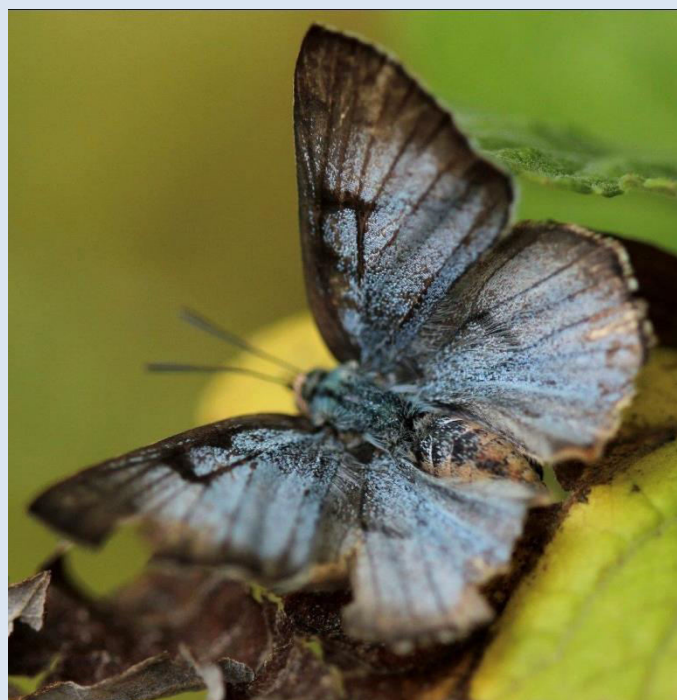
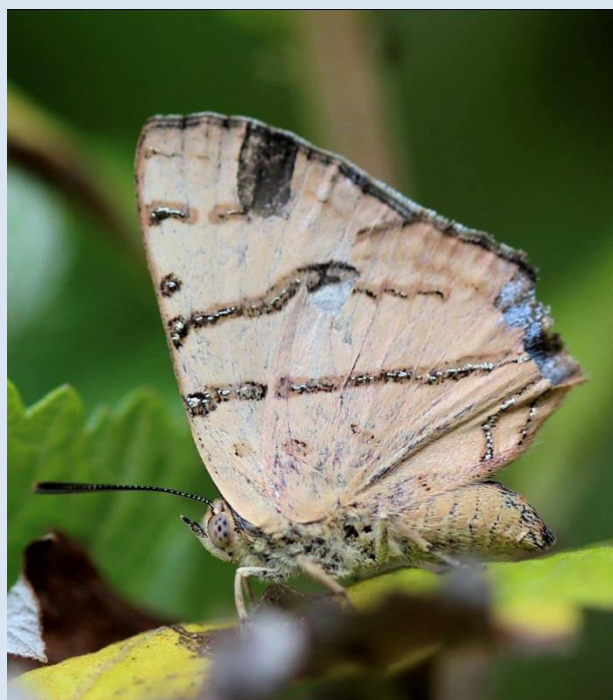
Larval Host Plants:

Data deficient.

Distribution:

Gujarat to Karnataka; Himachal Pradesh to Assam (Recent records only from Bengaluru, Karnataka).

Abnormal Silverline *Spindasis abnormis* (Moore, 1884)



Images: UN and UP by Sujit Borkar



Wing span: 40–44 mm.

Larval Host Plants:

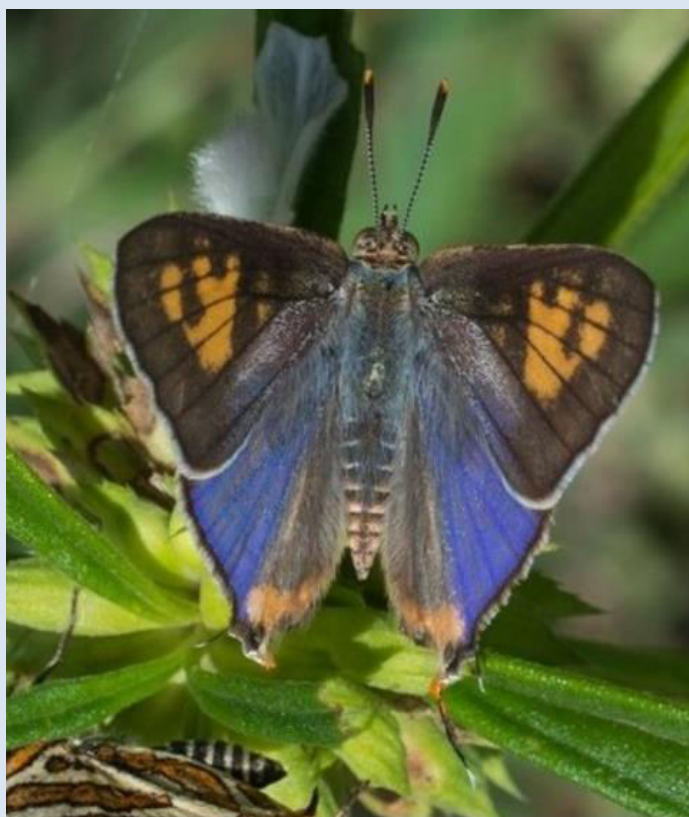
Terminalia spp. (Combretaceae), *Cassia fistula*,
Entada spp. (Fabaceae).

Distribution:

Western Ghats: Maharashtra to Tamil Nadu.

Endemicity: Endemic to Western Ghats.

Image: UN by Raju Kasambe

Common Shot Silverline *Spindasis ictis* (Hewitson, 1865)

Images: UN and Female UP by Manidip Mandal

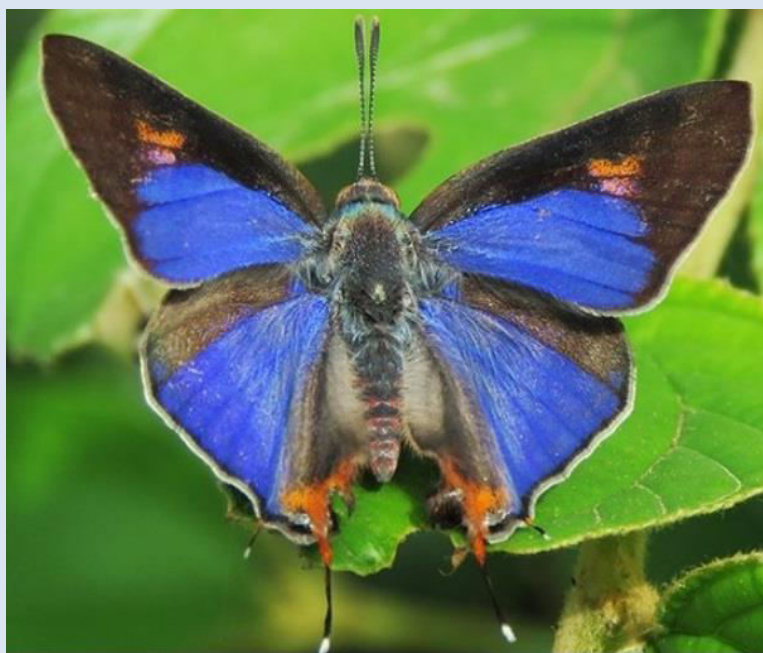
Wing span: 27–35 mm.

Larval Host Plants:

Senna montana, *S. siamea* (Fabaceae).

Distribution:

S. i. ictis (Hewitson, 1865): Rajasthan northwards to Himachal Pradesh, eastwards to W. Bengal and southwards to Kerala.

Scarce Shot Silverline *Spindasis elima* (Moore, 1877)

Images: UN and UP by Yogesh Tambat

Wing span: 28–42 mm.

Larval Host Plants:

Data deficient.

Distribution: Subspecies:

S. e. elima (Moore, 1877): Gujarat eastwards to W. Bengal and southwards to Kerala; Himachal Pradesh to N.E. India.

Redspot *Zesius chrysomallus* Hüebner, [1819]

Image: UN by Makarand Kulkarni

Wing span: 38–44 mm.

Larval Host Plants:

Anacardium occidentale (Anacardiaceae), *Terminalia* spp., *T. alata*, *T. catappa*, *T. paniculata*, *T. tomentosa* (Combretaceae), *Dioscorea* spp. (Dioscoreaceae), *Cassia fistula*, *Pterocarpus marsupium*, *Xylia xylocarpa* (Fabaceae), Loranthaceae, *Psidium guajava* (Myrtaceae), *Averrhoa carambola*, *A. occidentale* (Oxalidaceae), *Smilax zeylanica* (Smilacaceae).

Distribution:

Western Ghats: Maharashtra to Kerala; Uttarakhand; Uttar Pradesh to N.E. India.

Broad-tailed Royal *Creon cleobis* (Godart, [1824])

Images: UN and UP by Firos A.K.

Wing span: 27–38 mm.

Larval Host Plants:

Helicanthes elasticus (Loranthaceae), *Viscum capitellatum* (Santalaceae).

Distribution: Subspecies:

C. c. cleobis (Godart, 1824): Western Ghats: Goa to Kerala, Himachal Pradesh to N.E. India.

Tufted White Royal *Pratapa deva* (Moore, 1858)

Images: UN and UP by Anila Manalil

Wing span: 32–40 mm.

Larval Host Plants:

Dendrophthoe falcata, *Loranthus* spp., *L. longiflorus*, *L. tomentosus*, *Scurrula parasitica* (Loranthaceae).

Distribution: Subspecies:

P. d. deva (Moore, 1858): Western Ghats: Maharashtra to Kerala; Madhya Pradesh; West Bengal.

Sahyadri Silver Royal *Ancema sudica* (Evans, 1926)

Images: UN and UP by Sharan V.

Wing span: 37–42 mm.

Larval Host Plants:

Viscum angulatum, *V. capitellatum* (Santalaceae).

Distribution: Subspecies:

Treated as a subspecies *A. b. sudica* (Evans, 1926) of Silver Royal in Varshney & Smetacek (2015): Western Ghats: Maharashtra to Kerala.

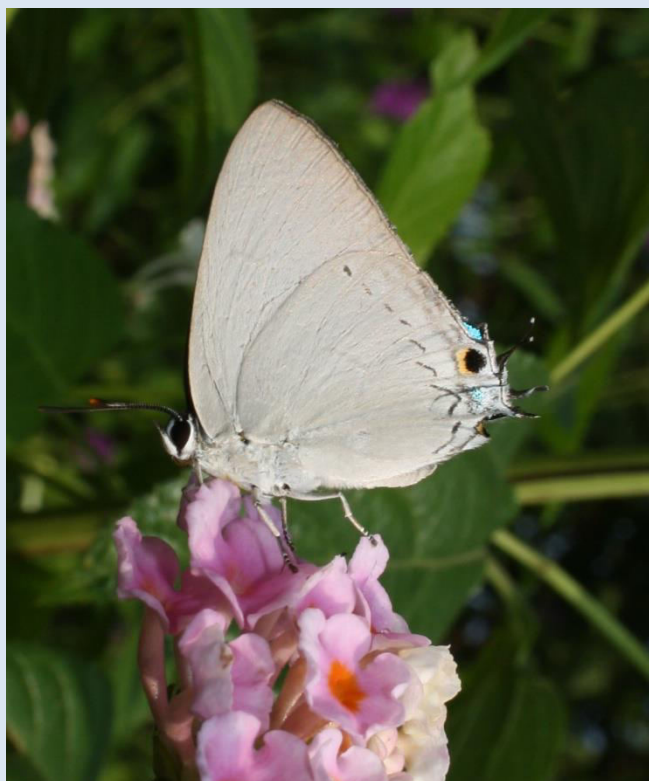
Peacock Royal *Tajuria cippus* (Fabricius, 1798)

Image: UN by Raju Kasambe

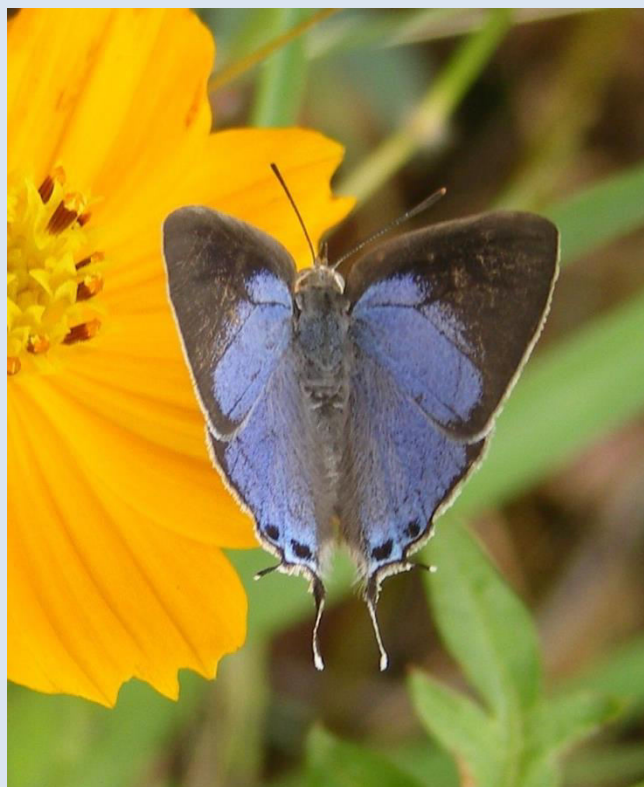


Image: UP by Vedant Kasambe

Wing span: 31–45 mm.

Larval Host Plants:

Dendrophthoe falcata, *D. glabrescens*, *Helicanthes elasticus*, *Helixanthera wallichiana*, *Loranthus* spp., *L. longiflorus* (Loranthaceae).

Distribution:

T. c. cippus (Fabricius, 1798): Andaman & Nicobar Islands (Andamans); throughout India except arid regions.

Plains Blue Royal *Tajuria jehana* Moore, [1884]

Image: UN by Dr. Anand Narvekar

Wing span: 30–37 mm.

Larval Host Plants:

Dendrophthoe spp., *Loranthus* spp. (Loranthaceae).

Distribution: Subspecies:

T. j. jehana Moore, 1883: Peninsular India; Uttarakhand to N.E. India.

Spotted Royal *Tajuria maculata* (Hewitson, 1865)

Image: UN by Dr. V.C. Balakrishnan

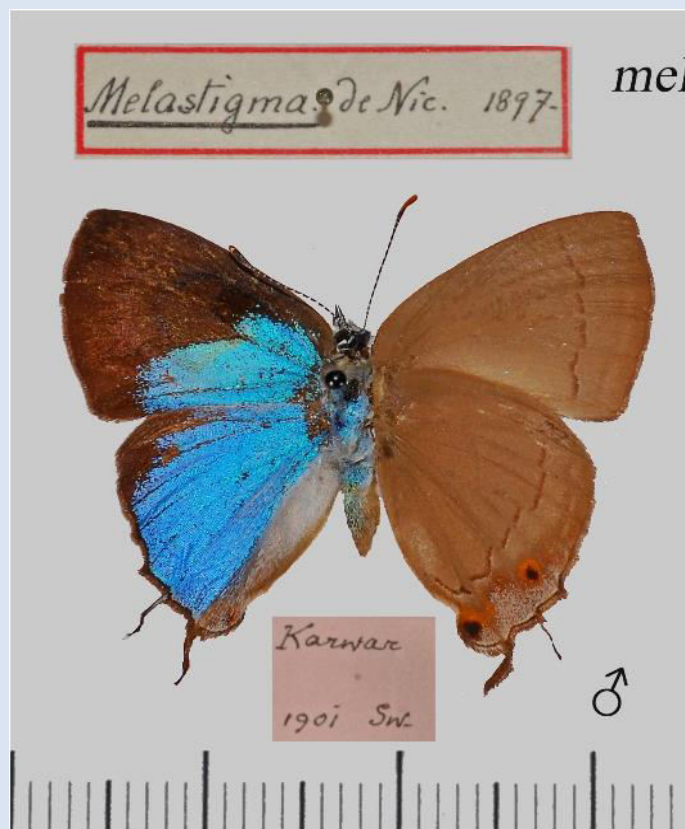
Wing span: 36–44 mm.

Larval Host Plants:

Dendrophthoe spp., *Loranthus* spp. (Loranthaceae), *Viscum* spp. (Santalaceae).

Distribution:

Sikkim to N.E. India, Tamil Nadu, Karnataka, Kerala.

Branded Royal *Tajuria melastigma* (de Niceville, 1884)

Left: Specimen from Karwar illustration by Alan Cassidy. Right image: UN by Vikas Madhav

Wing span: 40–46 mm.

Larval Host Plants:

Loranthus spp., *L. tomentosus* (Loranthaceae).

Distribution:

Western Ghats: Goa to Kerala (recent records from Karnataka, Kerala and Tamil Nadu); Uttarakhand to N.E. India.

Banded Royal *Eliotiana jalindra* (Horsfield, 1829)
(Syn. *Rachana jalindra*)



Image: UN by Praveen G Nair

Wing span: 36–44 mm.

Larval Host Plants:

Dendrophthoe falcata, *Helicanthes elasticus* (Loranthaceae).

Distribution:

Subspecies: *E. j. macanita* Fruhstorfer, 1912 (Syn. *Rachana jalindra macanita* (Fruhstorfer, 1912): Southern Maharashtra (Amboli) southwards to Kerala.

Common Imperial *Cheritra freja* (Fabricius, 1793)

Image: UN by Raju Kasambe

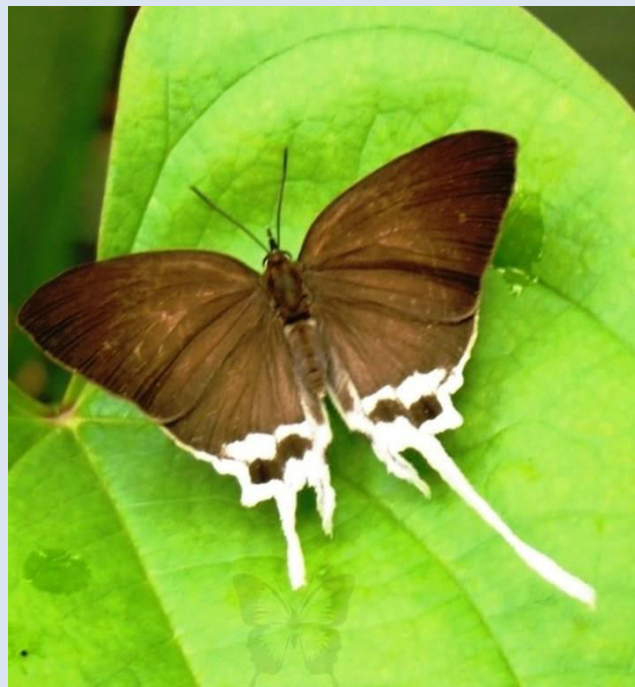


Image: UP by Anila Manalil

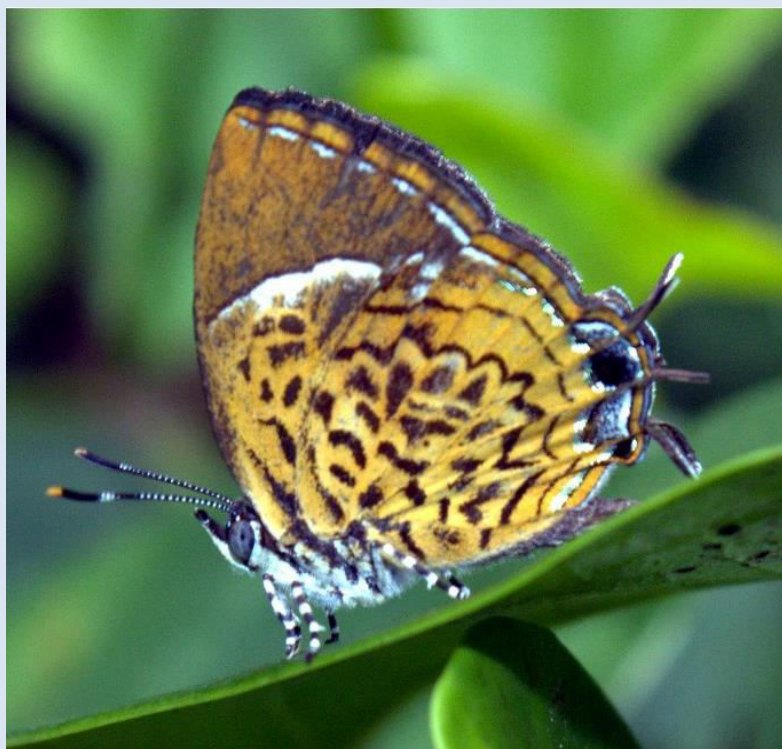
Wing span: 38–42 mm.

Larval Host Plants:

Saraca asoca, *Xylia xylocarpa* (Fabaceae), *Cinnamomum camphora*, *C. macrocarpum*, *C. verum* (Lauraceae), *Ixora* (Rubiaceae), *Lepisanthes tetraphylla* (Sapindaceae).

Distribution: Subspecies:

C. f. butleri Cowan, 1965: Southern Maharashtra (Amboli) southwards to Kerala.

Monkey Puzzle *Rathinda amor* (Fabricius, 1775)

Images: UN and UP by Raju Kasambe

Wing span: 26–28 mm.

Larval Host Plants:

Mangifera indica (Anacardiaceae), *Meiogyne pannosa* (Annonaceae), *Calophyllum* spp. (Clusiaceae), *Hopea* spp. (Dipterocarpaceae), *Blachia* spp., *Croton* spp. (Euphorbiaceae), *Barringtonia acutangula*, *Careya arborea* (Lecythidaceae), *Loranthus* (Loranthaceae), *Eugenia roxburghii* (Myrtaceae), *Ixora* spp., *Ixora brachiata* (Rubiaceae), *Schleichera* spp. (Sapindaceae), *Quassia indica* (Simaroubaceae).

Distribution:

Western Ghats: Maharashtra southwards. Kerala to N.E. India.

Common Onyx *Horaga onyx* (Moore, 1858)

Images: UN and UP by Raju Kasambe

Wing span: 27–33 mm.

Larval Host Plants:

Mangifera indica (Anacardiaceae), *Coriaria nepalensis* (Coriariaceae). Possible LHP *Crassocephalum crepioides*, needs confirmation.

Distribution: Subspecies:

H. o. cingalensis Moore, 1884: Southern Maharashtra (Amboli) southwards to Kerala.

Brown Onyx *Horaga viola* Moore, 1882



Image: UN by VC Balakrishnan

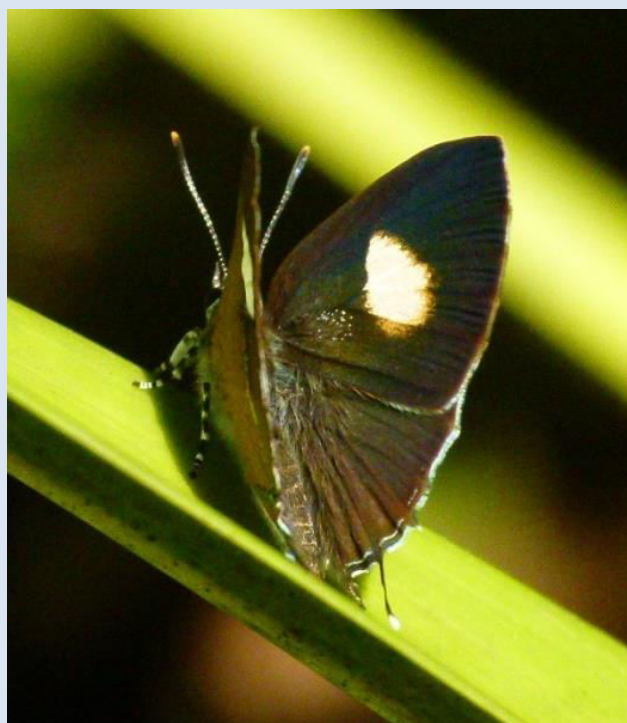


Image: UP by L. Shyamal

Wing span: 22–28 mm.

Larval Host Plants:

Mangifera indica (Anacardiaceae), *Coriaria nepalensis* (Coriariaceae).

Distribution:

Western Ghats: Karnataka and Kerala; Himachal Pradesh to N.E. India.

Common Tinsel *Catapaecilma major* Druce, 1895

Image: UN by Hemant Ogale

Wing span: 28–32 mm.

Larval Host Plants:

Terminalia arjuna, *T. paniculata* (Combretaceae), *Mallotus nudiflorus* (Euphorbiaceae), *Lagerstroemia parviflora* (Lythraceae), *Ziziphus rugosa* (Rhamnaceae).

Distribution: Subspecies:

C. m. callone Fruhstorfer, 1915: Western Ghats: Maharashtra (Mumbai) southwards to Kerala.

Orchid Tit *Chliaria othona* (Hewitson, 1865)

Images: UN and UP by Raju Kasambe

Wing span: 24–27 mm.

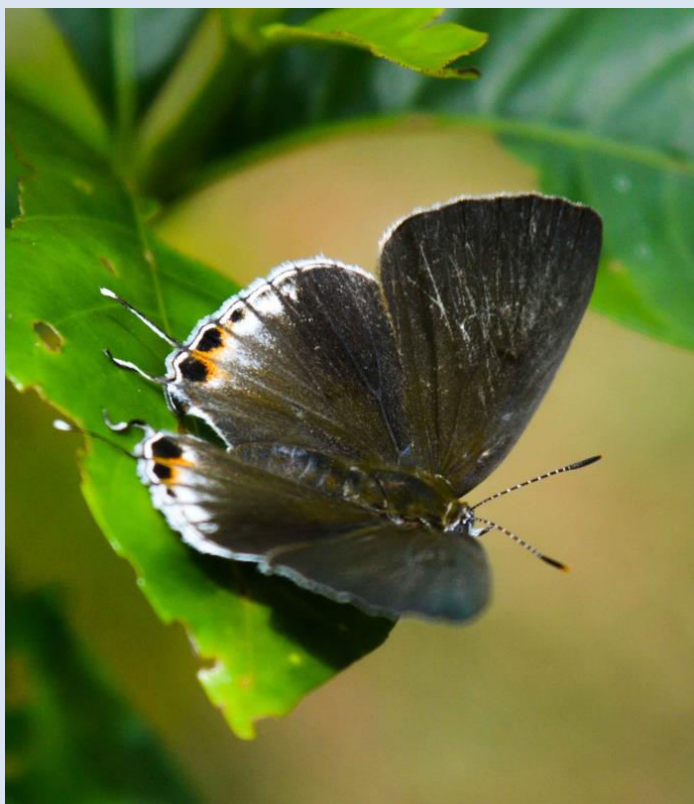
Larval Host Plants:

Acampe praemorsa, *Aerides crispum*, *Cottonia peduncularis*, *Rhynchostylis retusa* (Orchidaceae).

Distribution:

Western Ghats: Maharashtra to Kerala; Uttarakhand to N.E. India; Andaman Islands.

Nilgiri Tit *Hypolycaena nilgirica* (Moore, 1884)



Images: UN and UP by Sithija I.Paranagama

Wing span: 28–32 mm.

Larval Host Plants:

Data deficient.

Distribution:

Western Ghats: Karnataka; Kerala; Tamil Nadu.

Fluffy Tit *Zeltus amasa* (Hewitson, 1865)



Images: UN and UP by Raju Kasambe

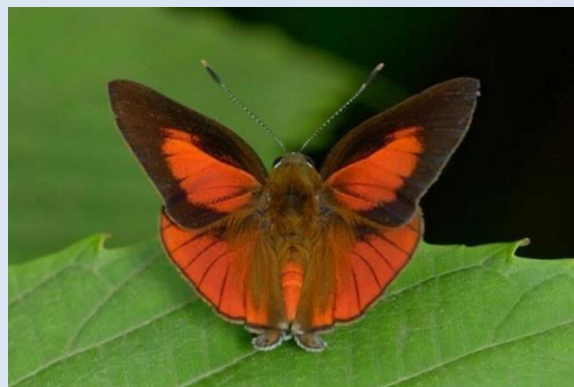
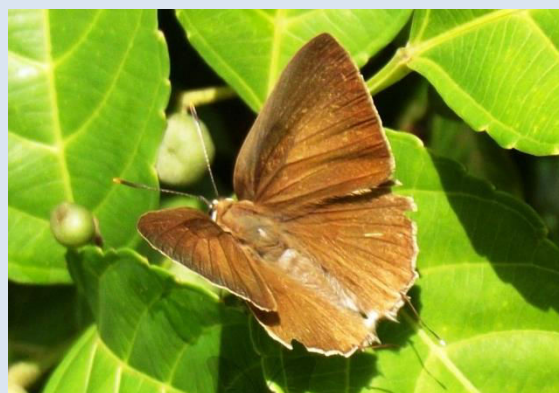
Wing span: 28–32 mm.

Larval Host Plants:

Ixora singaporensis (Rubiaceae).

Distribution:

Western Ghats: Southern Maharashtra (Sindhudurg) southwards to Kerala; Sikkim to N.E. India.

Cornelian *Deudorix epijarbas* (Moore, 1857)

Images clockwise from left: UN by Raju Kasambe, Female UP by Anila Manalil and Male UP by Divakar Thombre

Wing span: 34–44 mm.

Larval Host Plants:

Connarus, *Connarus wightii* (Connaraceae), *Punica* spp., *P. granatum* (Lythraceae), *Aesculus* spp., *A. indica*, *A. assamica*, *Harpullia arborea*, *Sapindus emarginatus*, *S. laurifolius*, *S. trifoliatus* (Sapindaceae).

Distribution:

D. e. epijarbas (Moore, 1857): South India to West Bengal.

Subspecies:

Common Guava Blue *Virachola isocrates* (Fabricius, 1793)

Image: UN by Firos A.K.

Wing span: 34–50 mm.

Larval Host Plants:

Psidium guajava (Myrtaceae), *Tamarindus indica* (Fabaceae), *Strychnos nux-vomica* (Loganiaceae), *Punica* spp., *Punica granatum* (Lythraceae), *Eriobotrya japonica*, *Malus pumila*, *Prunus dulcis*, *P. persica*, *Pyrus communis* (Rosaceae); *Catunaregam nutans*, *C. spinosa*, *Gardenia gummifera*, *G. latifolia*, *Randia* spp., *Tamilnadia uliginosa* (Rubiaceae). *Citrus* spp., *C. sinensis*, *Limonia acidissima*, *L. elephantum*, *Naringi crenulata* (Rutaceae).

Distribution:

Throughout India.

Large Guava Blue *Virachola perse* (Hewitson, 1863)



Image: UN by Raju Kasambe

Wing span: 48–52 mm.

Larval Host Plants:

Catunaregam nutans, *C. spinosa* (Rubiaceae).

Distribution: Subspecies:

V. p. ghela Fruhstorfer, 1912: Western Ghats: Maharashtra to Kerala.

Indigo Flash *Rapala varuna* (Horsfield, [1829])

Image: UN by Aditya Joshi



Image: UP by Santosh Hatti

Wing span: 28–29 mm.

Larval Host Plants:

Combretum indicum (Combretaceae), *Ziziphus rugosa*, *Z. xylopyrus* (Rhamnaceae), *S. laurifolius* (Sapindaceae).

Distribution: Subspecies:

R. v. lazulina (Moore, 1879): Western Ghats: Maharashtra to Kerala; West Bengal.

Slate Flash *Rapala manea* (Hewitson, 1863)

Image: UN by Raju Kasambe



Image: UP by Balakrishnan Valappil

Wing span: 30–33 mm.

Larval Host Plants:

Mangifera indica (Anacardiaceae), *Combretum indicum* (Combretaceae), *Acacia caesia*, *A. megaladena*, *A. pennata*, *A. torta*, *Mimosa invisa*, *Saraca asoca* (Fabaceae), *Clerodendrum infortunatum* (Lamiaceae), *Urena lobata* (Malvaceae), *Averrhoa bilimbi* (Oxalidaceae), *Antidesma acidum*, *A. ghaesembilla* (Phyllanthaceae), *Ziziphus* spp. (Rhamnaceae), *Sorbaria sorbifolia* (Rosaceae), *Lepisanthes tetraphylla* (Sapindaceae), *Camellia sinensis* (Theaceae), *Lantana camara* (Verbenaceae).

Distribution:

R. m. schistacea (Moore, 1879): Throughout India; Andaman & Nicobar Islands (Andamans).

Indian Red Flash *Rapala iarbus* (Fabricius, 1787)

Image: UN by Raju Kasambe



Image: UP by Tarun Karmakar

Wing span: 33–44 mm.

Larval Host Plants:

Terminalia catappa (Combretaceae), *Homonoia riparia* (Euphorbiaceae), *Acacia leucophloea*, *Desmodium dalbergioides*, *D. oojeinense*, *Xylia xylocarpa* (Fabaceae), *Melastoma malabathricum*, *M. polyanthum* (Melastomataceae), *Averrhoa bilimbi* (Oxalidaceae), *Ziziphus rugosa* (Rhamnaceae), *Nephelium lappaceum*, *Schleichera oleosa* (Sapindaceae), *Mimusops elengi* (Sapotaceae).

Distribution: Subspecies:

R. i. sorya (Kollar, [1844]): Jammu & Kashmir; Odisha; Punjab; Peninsular India; Uttarakhand; Uttar Pradesh and W. Bengal.

Malabar Flash *Rapala lankana* (Moore, 1879)



Image: UN by Vinayaraj



Image: UN by Dr. Prashanth Bhat

Wing span: 38–41 mm.

Larval Host Plants:

Acacia caesia (Fabaceae), *Ziziphus rugosa* (Rhamnaceae).

Distribution:

Western Ghats: Karnataka, Kerala, Tamil Nadu.

Blue-edged Plane *Bindahara moorei* Fruhstorfer, 1904



Images: Male UN and Female UN by Vinayaraj

Wing span: 36–42 mm.

Larval Host Plants:

Salacia fruticosa, *S. macrosperma*, *S. reticulata* (Celastraceae).

Distribution: Western Ghats: Maharashtra southwards to Kerala.

Family Facts

Family Nymphalidae: Brush-footed Butterflies

The family is known as the Brush-footed butterflies because the forelegs of the adults are small and hairy resembling tiny brushes, and are not used for walking.

The butterflies in this family vary considerably in their appearance in all stages of the life cycle (adult, egg, caterpillar, pupa), but generally can be characterized by the following, 1) size of the forelegs is reduced (except female of Beaks), thus they use only four legs to walk or perch; 2) medium to large in size and brightly and/or uniquely marked; 3) the pattern of wing veins of the forewing is unique; and 4) the rigid antennae have club shaped tips.

Interesting traits demonstrated by some members of this family include long distance migrations (Painted Lady, milkweeds like Tigers, Crows), territoriality, powerful flight (Nawabs, Rajahs) or weak flight (Rings, Bushbrowns).

Eggs vary in shape and in their arrangement on the plant. Caterpillars vary considerably in their appearance, but are often hairy or spiny. Pupae have a cremaster from which they are suspended upside down, but have no silk girdle and form no cocoon.

Lobed Beak *Libythea laius lepitoides* Moore, [1903]

Image: UN by Firos A.K.



Image: UP by Leema Robert

Wing Span: 45–50 mm.

Larval Host Plants:

Celtis australis, *C. tetrandra*, *Trema orientalis* (Cannabaceae), *Gossypium herbaceum* (Malvaceae).

Distribution: Gujarat to Kerala.

Considered as a subspecies *L. l. lepitoides* Moore, 1901 by Varshney and Smetacek (2015).

Club Beak *Libythea myrrha* (Godart, 1819)

Image: UN by Sagar Sarang



Image: UP by Dhaval Momaya

Wing Span: 45–55 mm.

Larval Host Plants:

Tragia plukenetii, *Tragia involucrata* (Euphorbiaceae), *Celtis tetrandra* (Cannabaceae).

Distribution: Subspecies:

L. m. rama Moore, 1872: Western Ghats: Maharashtra (Matheran) to Kerala; Andhra Pradesh.

Glassy Tiger *Parantica aglea* (Stoll, 1782)

Images: UN and UP by Raju Kasambe

Wing Span: 70–85 mm.

Larval Host Plants:

Calotropis gigantea, *Cryptolepis dubia*, *Tylophora indica*, *T. flexuosa*
Ceropegia bulbosa, *C. lawii* (Apocynaceae).

Distribution: Subspecies:

P. a. aglea (Stoll, [1782]): Western Ghats: Gujarat to Kerala; Chhattisgarh; Odisha; W. Bengal.

Nilgiri Tiger *Parantica nilgiriensis* (Moore, 1877)

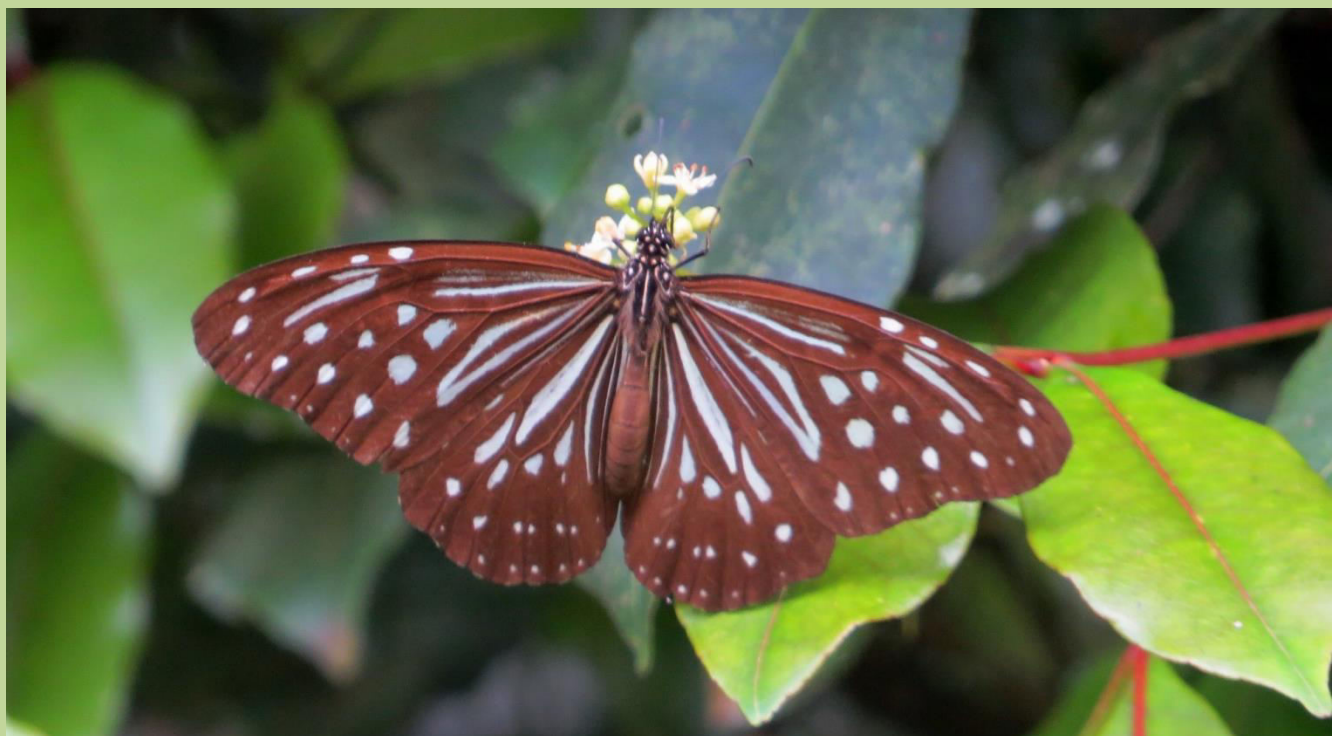


Image: UP by Vinayaraj and
UN by Sharan V.

Wing Span: 80–90 mm.

Larval Host Plants:

Tylophora indica, *T. flexuosa* (Apocynaceae).

Distribution:

Western Ghats: Karnataka; Kerala; Tamil Nadu.

Endemicity:

Endemic to Western Ghats.

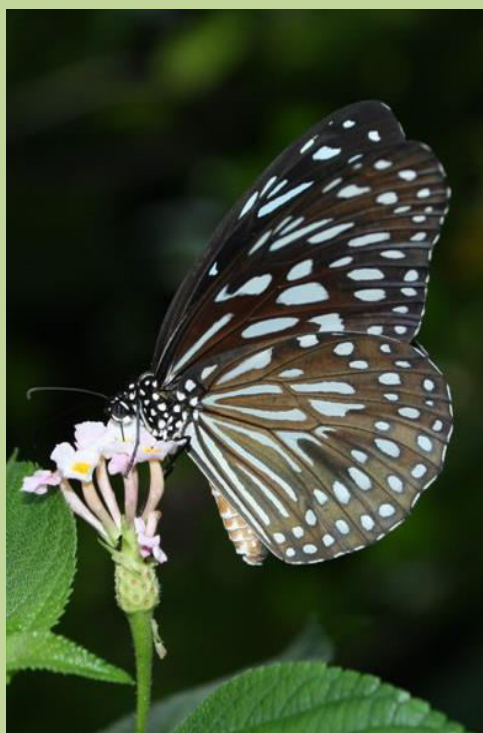
Dark Blue Tiger *Tirumala septentrionis* (Butler, 1874)

Image: UN by Raju Kasambe

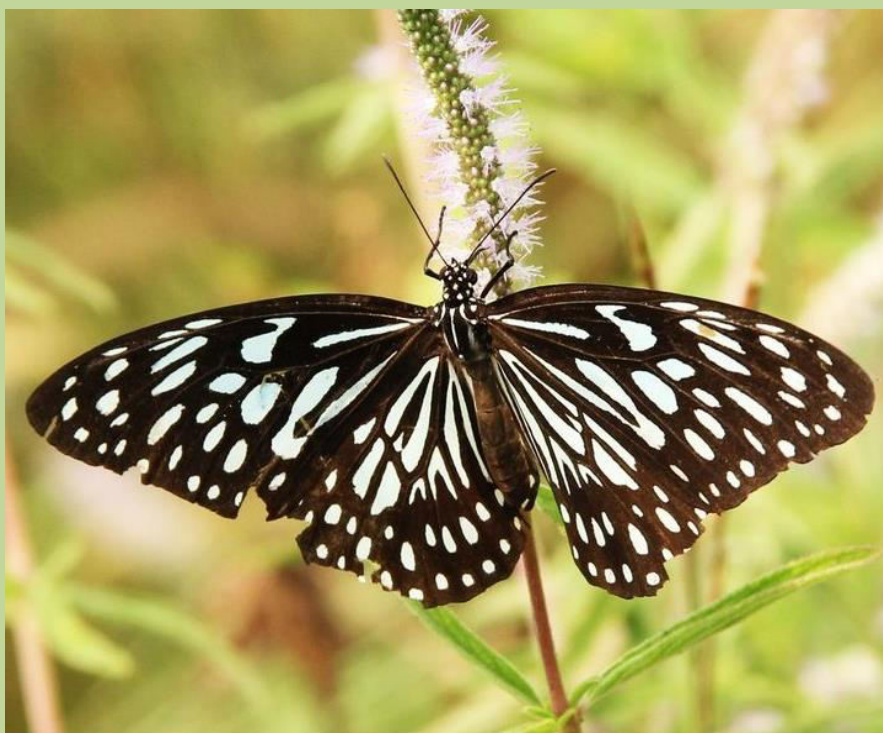


Image: UP by Anila Manalil

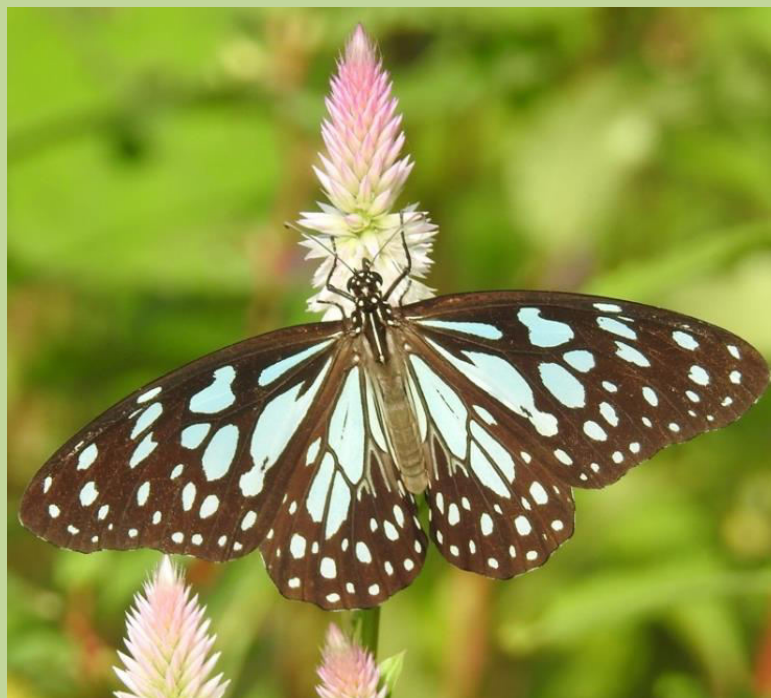
Wing Span: 75–95 mm.

Larval Host Plants:

Vallaris solanacea, *Cosmostigma cordatum*, *Dregea volubilis* (Apocynaceae).

Distribution: Subspecies:

T. s. dravidarum (Fruhstorfer, 1899): Gujarat east to Odisha and south to Kerala (entire Western Ghats).

Blue Tiger *Tirumala limniace* (Cramer, 1775)

Images: UP and Male UN by Raju Kasambe

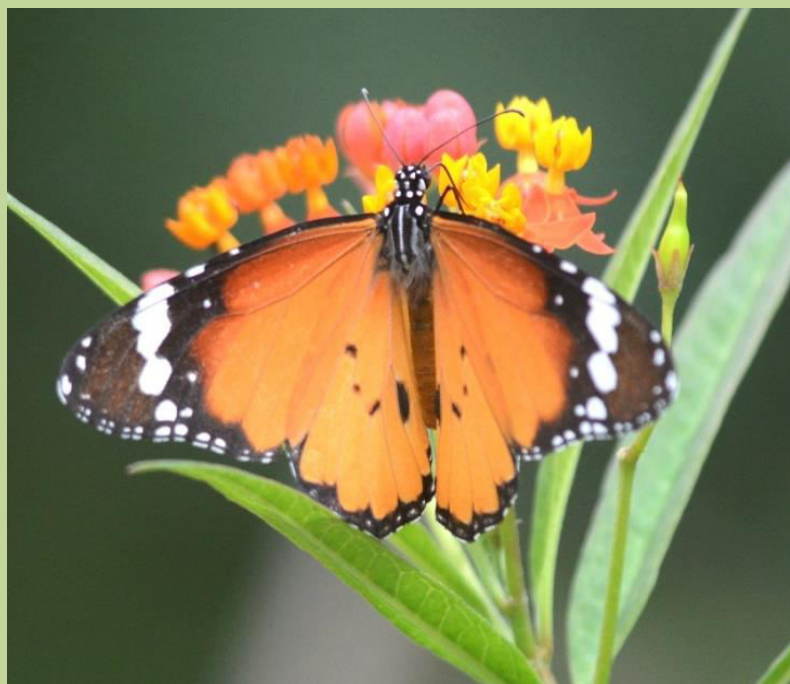
Wing Span: 90–100 mm.

Larval Host Plants:

Heterostemma spp., *Holarrhena pubescens*, *Asclepias curassavica*, *Calotropis* spp., *C. gigantea*, *C. procera*, *Dregea volubilis*, *Cosmostigma cordatum*, *Hoya* spp., *Cosmostigma cordatum*, *Marsdenia tenacissima*, *Tylophora indica*, *Vallaris solanacea* (Apocynaceae), *Saccharum* spp., *Saccharum officinarum* (Poaceae).

Distribution:

T. l. exotica (Gmelin, 1790): Throughout India including Lakshadweep; Andaman & Nicobar Is.

Plain Tiger *Danaus chrysippus* (Linnaeus, 1758)

Images: UP and UN by Raju Kasambe

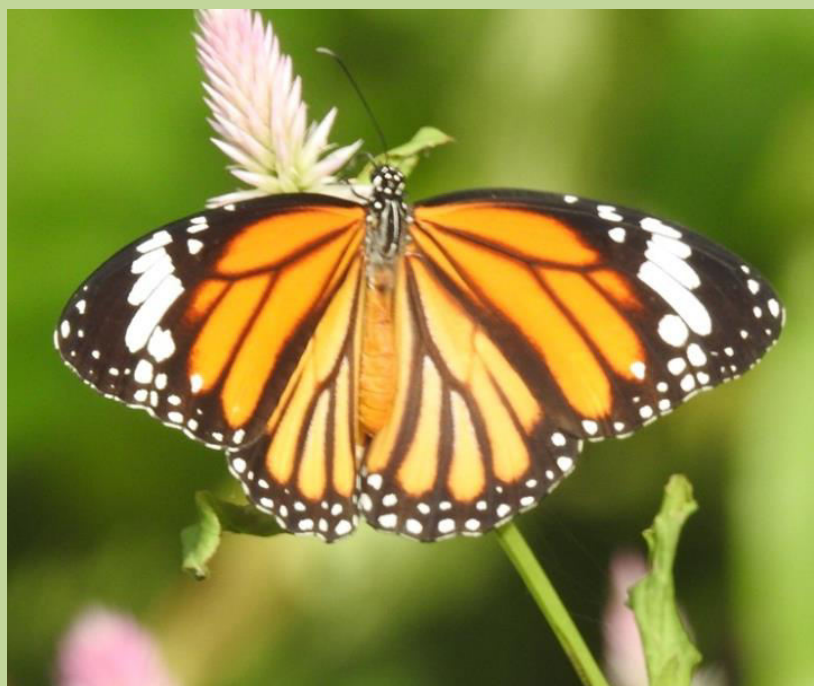
Wing Span: 70–80 mm.

Larval Host Plants:

Asclepias curassavica, *Calotropis* spp., *C. gigantea*, *C. procera*, *Caralluma adscendens*, *Cryptolepis dubi*, *Pergularia daemia* (Apocynaceae).

Distribution:

D. c. chrysippus (Linnaeus, 1758): Throughout India.

Common Tiger *Danaus genutia* (Cramer, 1779)**(Syn. Striped Tiger)**

Images: UP and UN by Raju Kasambe

Wing Span: 72–100 mm.

Larval Host Plants:

Asclepias curassavica, *Ceropegia fantastica*, *C. hirsuta*, *C. intermedia*, *C. lawii*, *C. vincifolia*, *Cynanchum callialatum*, *C. dalhousiae*, *C. liukiense*, *Holostemma ada-kodien*, *Marsdenia floribunda*, *M. tinctoria*, *M. tomentosa*, *Passularia*, *Raphistemma pulchellum*, *R. lemma*, *Tylophora flexuosa* (Apocynaceae).

Distribution:

D. g. genutia (Cramer, [1779]): Throughout India.

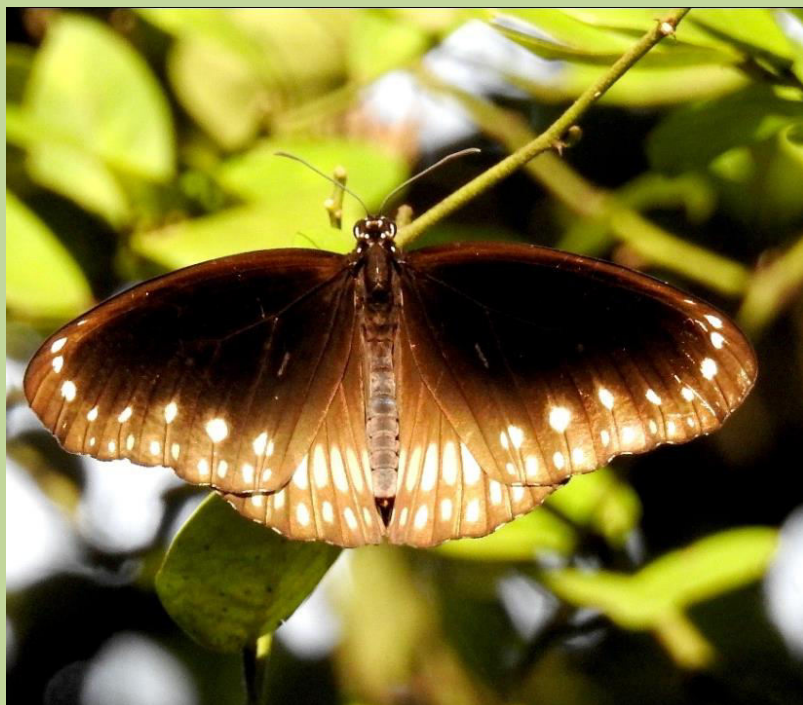
Common Crow *Euploea core* (Cramer, 1780)**(Syn. Common Indian Crow)**

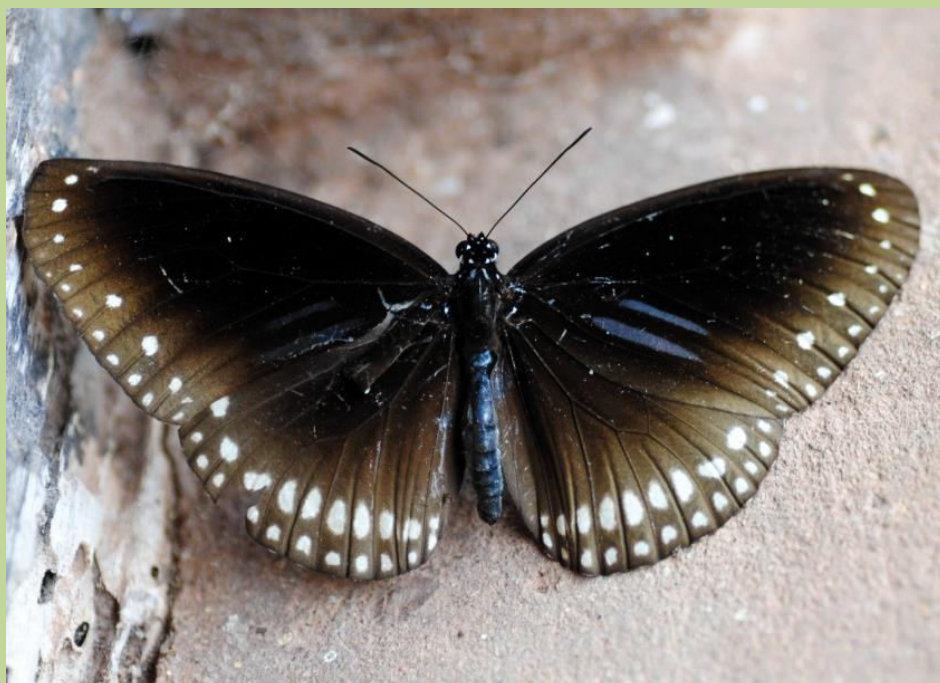
Image: UP and UN by Raju Kasambe

Wing Span: 85–95 mm.**Larval Host Plants:**

Adenium obesum, *Asclepias curassavica*, *Carissa carandas*, *C. spinarum*, *Cascabela thevetia*, *Cryptolepis dubia*, *C. sinensis*, *Hemidesmus indicus*, *Holarrhena* spp., *Ichnocarpus frutescens*, *Nerium* spp., *Nerium oleander*, *Tylophora indica*, *Wrightia antidysenterica* (Apocynaceae), *Ficus* spp., *F. benghalensis*, *F. drupacea*, *F. pumila*, *F. racemosa*, *F. religiosa*, *Streblus asper* (Moraceae).

Distribution: Subspecies:

E. c. core (Cramer, [1780]): Throughout India.

Double-branded Crow *Euploea sylvester* (Fabricius, 1793)

Images: UP and UN by Dattaprasad Sawant

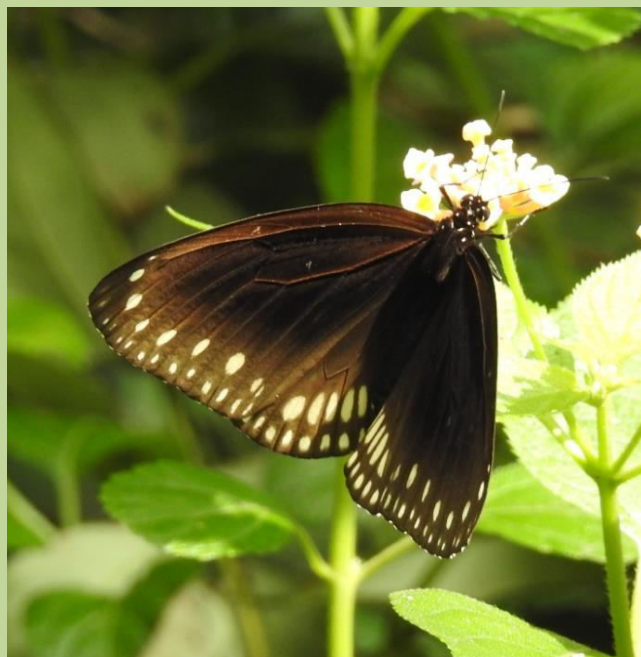
Wing Span: 95–105 mm.

Larval Host Plants:

Cynanchum spp., *Hoya* spp., *Ichnocarpus frutescens* (Apocynaceae), *Ficus* spp., *F. exasperata*, *F. microcarpa*, *F. racemosa* (Moraceae).

Distribution: Subspecies:

E. s. coreta (Godart, 1819): Peninsular India: South Maharashtra Southwards, Andhra Pradesh, Telangana and West Bengal.

King Crow *Euploea klugii* Moore, [1858]**(Syn. Brown King Crow)**

Images: UP and UN by Raju Kasambe

Wing Span: 85–100 mm.

Larval Host Plants:

Ficus hispida, *Streblus asper* (Moraceae).

Distribution: Subspecies:

E. k. kollari C. & R. Felder, [1865]: Gujarat southwards to Kerala and eastwards to W. Bengal and Odisha.

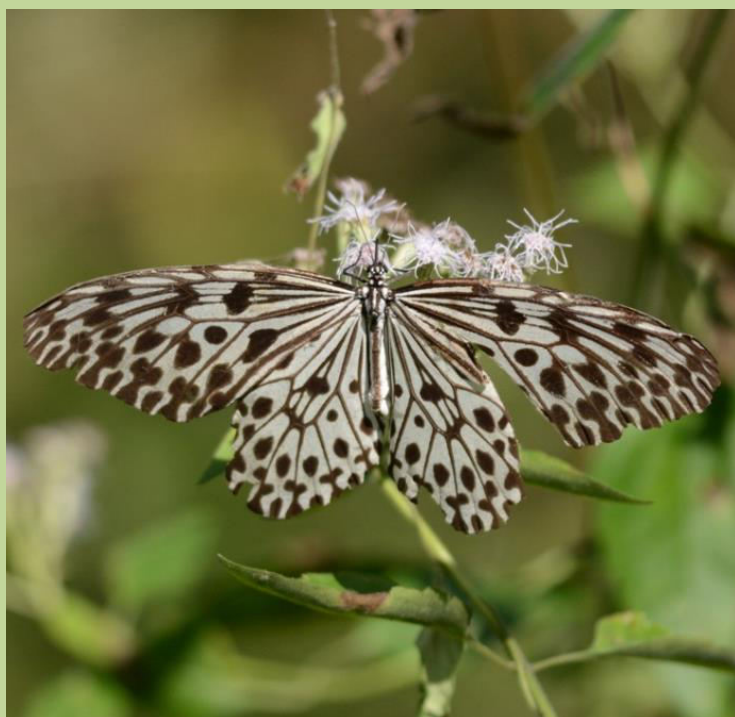
Malabar Tree Nymph *Idea malabarica* (Moore, 1877)

Image: UP by Raju Kasambe



Image: UN by Ashok Sengupta

Wing Span: 110–160 mm.

Larval Host Plants:

Aganosma cymosa, *Parsonsia alboflavescens* (Apocynaceae).

Distribution:

Western Ghats: Maharashtra (Bhimashankar and Amboli-Tillari) southwards to Goa, Karnataka, Tamil Nadu and Kerala.

Note: Varshney and Smetacek (2015) mention two subspecies: *I. m. kanarensis* (Moore, 1890) and *I. m. malabarica* (Moore, 1877).

Endemicity:

Endemic to Western Ghats.

Plain Tawny Rajah *Charaxes psaphon* Westwood, 1847

Images: Female UN and Male UN by Raju Kasambe

Wing Span: 85–110 mm.

Larval Host Plants:

Miliusa tomentosa (Annonaceae), *Adenanthera pavonina*, *Bauhinia racemosa*, *Dalbergia latifolia*, *Pithecellobium dulce*, *Pterocarpus marsupium*, *Tamarindus indica* (Fabaceae), *Aglaia lawii*, *A. elaeagnoidea* (Meliaceae).

Distribution: Subspecies:

Ch. p. imna Butler, 1870: Peninsular India as far north as Gujarat; Madhya Pradesh; Odisha.

Note: The similar looking Tawny Rajah *Charaxes bernardus* (Fabricius, 1793) is found in Sikkim to N.E. India; Uttarakhand and Andaman Is.

Black Rajah *Charaxes solon* (Fabricius, 1793)

Images: UN and UP by Raju Kasambe

Wing Span: 70–80 mm.

Larval Host Plants:

Dalbergia sissoo, *Moullava spicata*, *Pithecellobium dulce*, *Tamarindus indica*, *Xylia xylocarpa* (Fabaceae).

Distribution: Subspecies:

Ch. s. solon (Fabricius, 1793): Rajasthan to Kerala (entire Western Ghats); Delhi; Himachal Pradesh to Sikkim and W. Bengal.

Common Nawab *Polyura athamas* (Drury, 1773)

(Syn. *Charaxes bharata* Felder & Felder, 1867)



Image: UN by Raju Kasambe

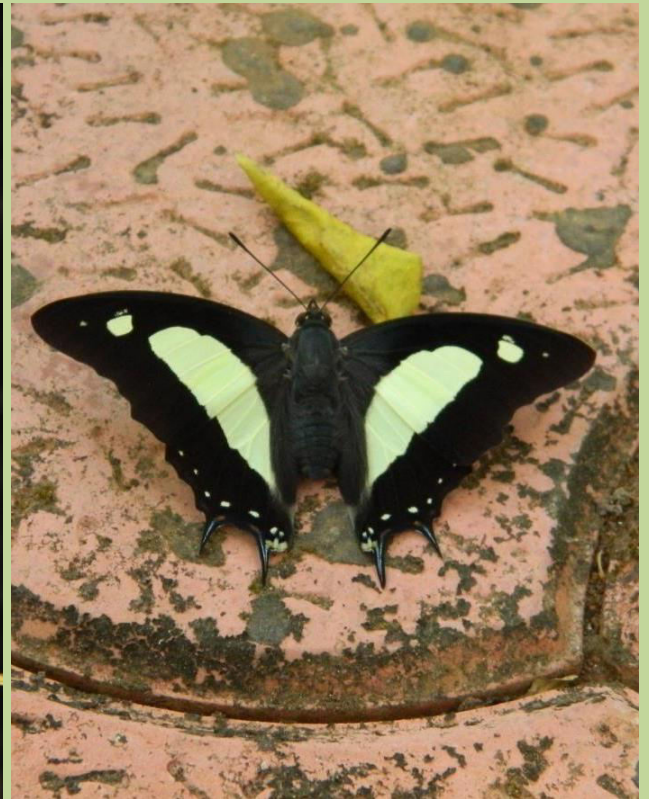


Image: UP by Omkar Joshi

Wing Span: 60–75 mm.

Larval Host Plants:

Acacia caesia, *A. catechu*, *A. chundra*, *A. pennata*, *A. polyacantha*, *A. torta*, *Adenanthera pavonina*, *Albizia julibrissin*, *A. lebbeck*, *A. corniculata*, *Falcataria moluccana*, *Caesalpinia bonduc*, *C. mimosoides*, *C. crista*, *C. regia*, *C. sappan*, *Delonix regia*, *Pithecellobium dulce* (Fabaceae), *Grewia*, *Helicteres isora* (Malvaceae).

Distribution: Subspecies:

P. a. athamas (Drury, [1773]): Himachal Pradesh to N.E. India; peninsular India south of Gujarat and Jharkhand.

Note: Also considered as a separate species *Charaxes bharata* Felder & Felder, 1867.

Blue Nawab *Polyura schreiberi* (Godart, 1824)

(Syn. *Charaxes schreiber*)



Image: UN by Aditya Joshi

Wing Span: 90–100 mm.

Larval Host Plants:

Adenanthera pavonina, *Bauhinia phoenicea*, *Cynometra cauliflora*, *Moullava spicata* (Fabaceae), *Helicteres isora* (Malvaceae), *Aglaia lawii* (Meliaceae), *Nephelium lappaceum*, *Rourea minor* (Sapindaceae).

Distribution: Subspecies:

P. s. wardii (Moore, 1896): Western Ghats: Southern Maharashtra (Amboli), Karnataka, Kerala and Odisha.

Anomalous Nawab *Polyura agraria* (Swinhoe, 1887)

(*Charaxes agrarius* Swinhoe, 1886)



Image: UN by Raju Kasambe

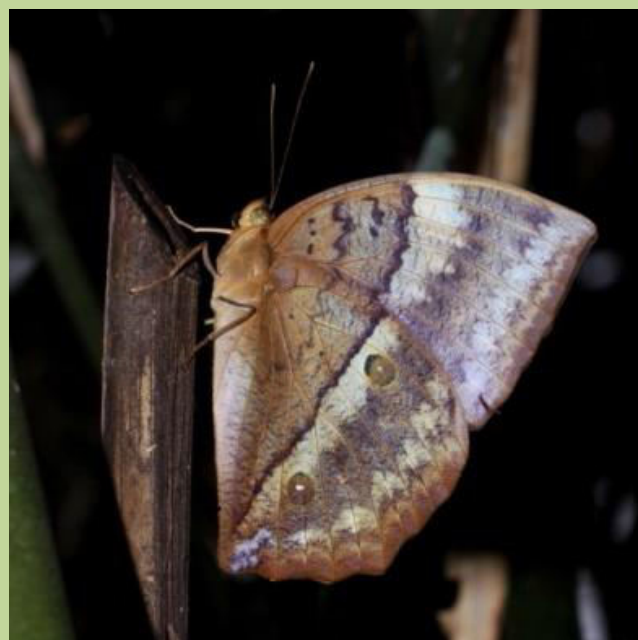
Wing Span: 95–100 mm.

Larval Host Plants:

Acacia caesia, *A. nilotica* (Fabaceae).

Distribution:

P. a. agraria (Swinhoe, 1887): Gujarat to Madhya Pradesh and southwards upto Kerala; Himachal Pradesh to N.E. India.

Southern Duffer *Discophora lepida* Moore, 1857

Images: UN by Balakrishnan Valappil

Wing Span: 85–100 mm.

Larval Host Plants:

Bambusa spp., *Dendrocalamus strictus*, *Ochlandra scriptoria*, *O. travancorica* (Poaceae).

Distribution:

D. l. lepida Moore, 1857: Western Ghats (Goa southwards to Karnataka, Tamil Nadu and Kerala).

Endemicity:

Endemic to Western Ghats (Goa southwards) and Sri Lanka.

Common Palmking *Amathusia phidippus* (Linnaeus, 1763)



Image: UN by Balakrishnan Valappil

Wing Span: 100–125 mm.

Larval Host Plants:

Calamus thwaitesii, *Cocos nucifera*, *Licuala* spp. (Arecaceae)

Distribution:

A. p. friderici Fruhstorfer, 1904: Western Ghats: Kerala.

Whitebar Bushbrown *Mycalesis anaxias* Hewitson, 1862



Image: WSF and DSF by Raju Kasambe

Wing Span: 48–55 mm.

Larval Host Plants:

Oplismenus compositus (Poaceae).

Distribution: Subspecies:

M. a. anaxias Hewitson, 1862: Western Ghats: Karnataka, Tamil Nadu and Kerala.

Long-brand Bushbrown *Mycalesis visala* Moore, 1858

Images clockwise from left: WSF UN by Raju Kasambe, UP by Ms. Marvelyn Dias, DSF UN by Shyam Ghatе

Wing Span: 45–55 mm.

Larval Host Plants:

Oplismenus compositus (Poaceae).

Distribution:

M. v. visala Moore, [1858]: Uttarakhand to N.E. India; Western Ghats (Gujarat, Maharashtra, Goa, Karnataka); and Madhya Pradesh to West Bengal.

Tamil Bushbrown *Mycalesis subdita* (Moore, [1890])

Images: UN by Sharan V. and UP by Haneesh K.M.

Wing Span: 45–55 mm.

Larval Host Plants:

Oplismenus compositus (Poaceae).

Distribution:

Western Ghats: Karnataka and Tamil Nadu.

Note: Also considered as a subspecies *M. v. subdita* (Moore, [1890]).

Red-eye Bushbrown *Heteropsis adolphei* (Guérin-Ménéville, 1843)

(Syn. *Telinga adolphei* (Guérin-Ménéville, 1843))



Images clockwise from top left: UN by David Raju, UP by Rajendran T.M. and UN by Santosh Hatti

Wing Span: 45–50 mm.

Larval Host Plants:
Poaceae.

Distribution: Western Ghats: Karnataka and Tamil Nadu.

Endemicity: Endemic to Western Ghats.

Palni Bushbrown *Heteropsis davisonii* (Moore, [1891])

(*Telinga davisoni* Moore, 1892)



Image: UN by Anila Manalil

Wing Span: 45–50 mm.

Larval Host Plants:

Data deficient.

Distribution: Western Ghats: Kerala and Tamil Nadu.

Note: Considered as a subspecies of Blind-eye Bushbrown *Heteropsis mamerta*: *H. m. davisonii* (Moore, [1891]) in Varshney and Smetacek (2015). Also mentioned as *Telinga davisoni* Moore, 1892.

Red-disc Bushbrown *Mycalesis oculus* Marshall, 1881

(Syn. *Telinga oculus* (Marshall, 1881))



Image: UN by Anila Manalil



Image: UP by David Raju

Wing Span: 45–60 mm.

Larval Host Plants:

Cyrtococcum trigonum, *Polytrias indica*, *Oplismenus compositus* (Poaceae).

Distribution:

Western Ghats: Kerala and Tamil Nadu.

Endemicity:

Endemic to Western Ghats.

Glad-eye Bushbrown *Mycalesis patnia* Moore, 1857

(*Mycalesis junonia* Butler, 1868)



Image: UN by Raju Kasambe



Image: UP by Anila Manalil

Wing Span: 40–45 mm.

Larval Host Plants:

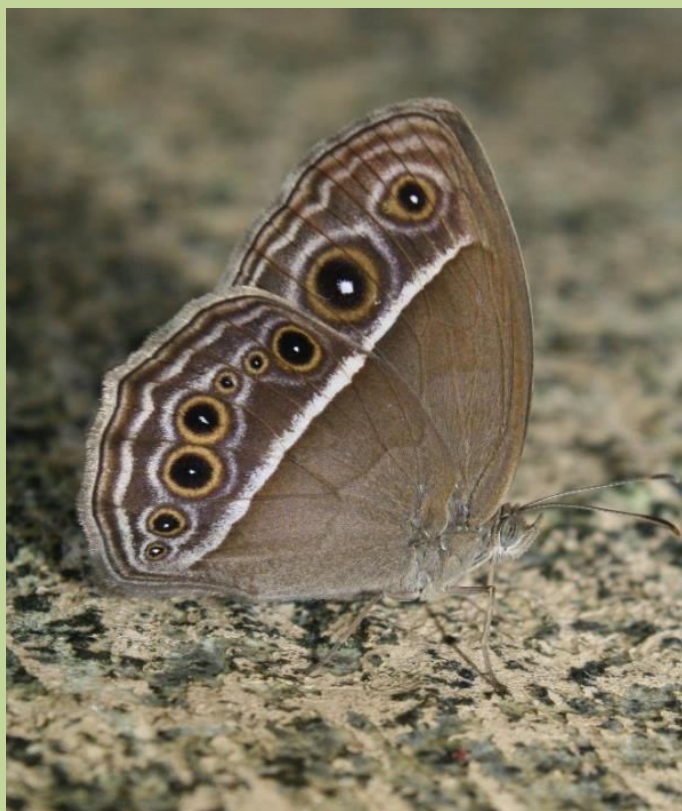
Poaceae, *Oplismenus compositus* (Poaceae).

Distribution:

M. p. junonia Butler, 1868: Western Ghats: Goa, Karnataka, Tamil Nadu and Kerala.

Endemicity:

Endemic to Western Ghats and Sri Lanka.

Common Bushbrown *Mycalesis perseus* (Fabricius, 1775)

Images: UN WSF and UN DSF by Raju Kasambe

Wing Span: 38–55 mm.

Larval Host Plants:

Poaceae, *Oplismenus compositus*, *Oryza* spp., *Oryza sativa* (Poaceae).

Distribution: Subspecies:

M. p. tabitha (Fabricius, 1793): Peninsular India south of the Himalaya to Kerala (entire Western Ghats).

Dark-brand Bushbrown *Mycalesis mineus* (Linnaeus, 1758)

Images: UN WSF and UP by Raju Kasambe

Wing Span: 40–50 mm.

Larval Host Plants:

Poaceae, *Setaria barbata* (Poaceae).

Distribution: Subspecies:

M. m. polydecta (Cramer, [1777]): Peninsular India from Gujarat to West Bengal to Kerala (entire Western Ghats); Lakshadweep.

Common Treebrown *Lethe rohria* (Fabricius, 1787)

Image: UN by Raju Kasambe

Wing Span: 58–70 mm.

Larval Host Plants:

Apluda spp., *Capillipedium* spp., *Microstegium* spp. (Poaceae).

Distribution: Subspecies:

L. r. neelgheriensis (Guerin-Meneville, 1843): Rajasthan east to West Bengal and south to Kerala (entire Western Ghats).

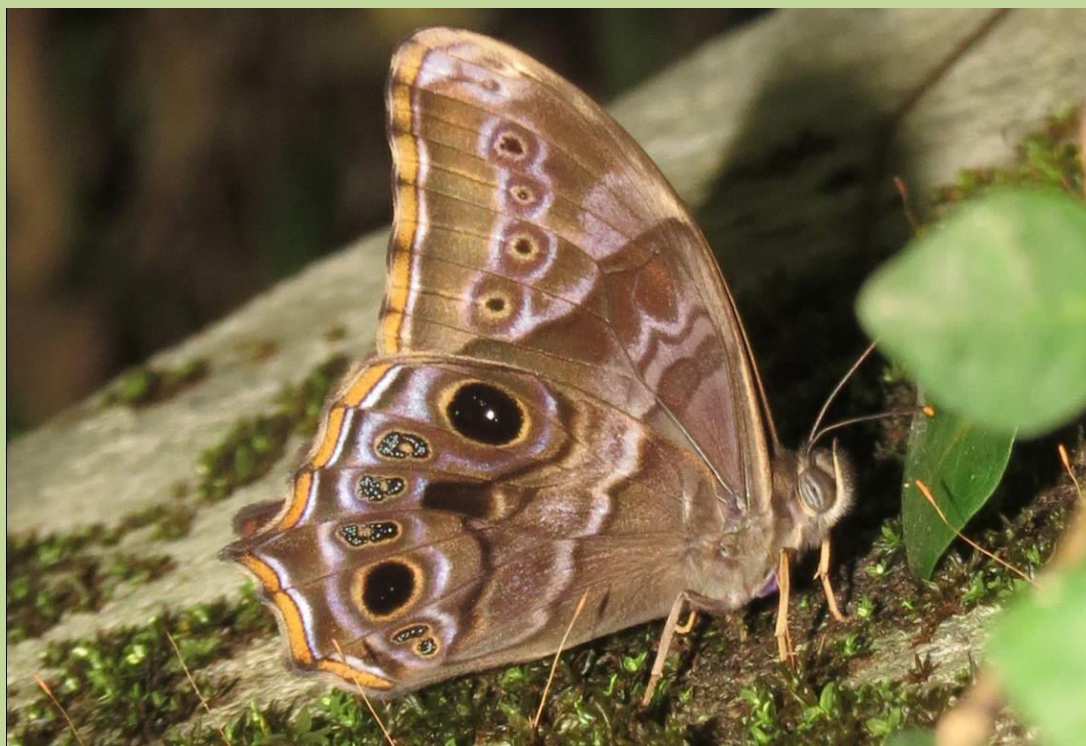
Tamil Treebrown *Lethe drypetis* (Hewitson, 1863)

Image: UN by Vinayaraj

Wing Span: 65–70 mm.

Larval Host Plants:

Bambusa bambos, *B. vulgaris* (Poaceae).

Distribution:

L. d. todara Moore, 1881: Western Ghats: Southern Maharashtra (Amboli), Karnataka, Tamil Nadu and Kerala.

Bamboo Treebrown *Lethe europa* (Fabricius, 1775)

Image: UN by Raju Kasambe

Wing Span: 65–75 mm.

Larval Host Plants:

Poaceae, *Bambusa bambos*, *B. vulgaris*, *Dendrocalamus strictus* (Poaceae).

Distribution: Subspecies:

L. e. ragalva Fruhstorfer, 1911: Gujarat eastwards to Odisha and southwards to Kerala.

Common Three-ring *Ypthima asterope* (Klug, 1832)

Image: UN by Raju Kasambe

Wing Span: 30–37 mm.

Larval Host Plants:

Poaceae.

Distribution:

Y. a. mahratta Moore, 1884: Throughout India.

(**Note** on tentative placement: *Y. mahratta* may be a good species) (Varshney & Smetacek, 2015).

Common Five-ring *Ypthima baldus* (Fabricius, 1775)



Images: Clockwise from top left: UN WSF and UN DSF and UP by Raju Kasambe

Wing Span: 32–48 mm.

Larval Host Plants:
Poaceae.

Distribution: Subspecies:

Y. b. madrasa Evans, 1924: Western Ghats: Gujarat to Kerala.

White Four-ring *Ypthima ceylonica* Hewitson, 1865

Image: UN by Raju Kasambe



Image: UP by K. Mohan Raj

Wing Span: 30–35 mm.**Larval Host Plants:***Setaria barbata* (Poaceae).**Distribution:***Y. c. ceylonica* Hewitson, 1865: Western Ghats: Goa eastwards to Odisha and southwards to Kerala.

Nilgiri Four-ring *Ypthima chenui* (Guérin-Méneville, 1843)



Image: UN by Aditya Joshi

Wing Span: 36–46 mm.

Larval Host Plants:

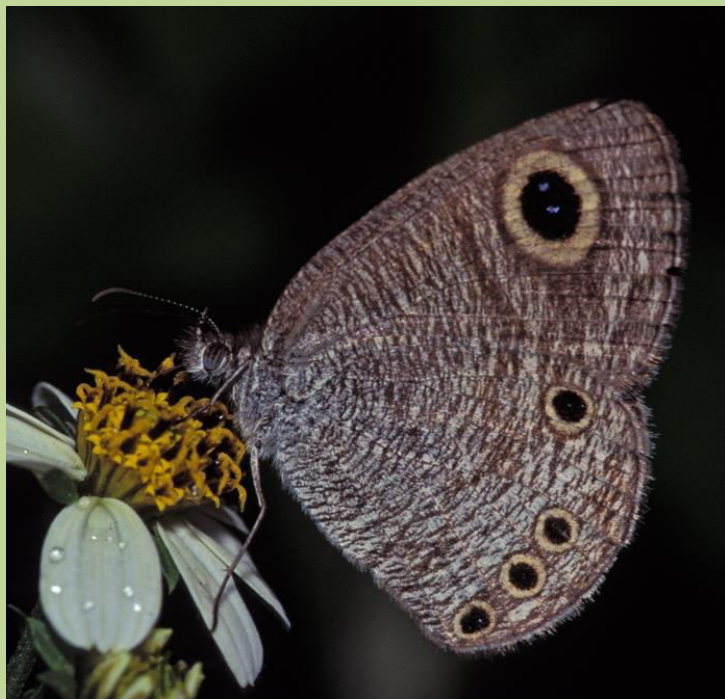
Poaceae.

Distribution:

Western Ghats: Karnataka and Tamil Nadu.

Endemicity:

Endemic to Western Ghats.

Common Four-ring *Ypthima huebneri* Kirby, 1871

Images: UN and UP by Dr. M.S. Mayilavahanan

Wing Span: 30–40 mm.

Larval Host Plants:

Axonopus compressus, Grass spp. (Poaceae).

Distribution:

Y. h. huebneri Kirby, 1871: Throughout India.

Nilgiri Jewel Four-ring *Ypthima striata* Hampson, [1889]

Image: UN by Firos A.K.

Wing Span: 33–45 mm.

Larval Host Plants:

Axonopus compressus, *Setaria barbata* (Poaceae).

Distribution: Western Ghats: Andhra Pradesh, Karnataka, Tamil Nadu and Kerala.

Endemicity: Endemic to the Western Ghats.

Southern Baby Five-ring *Ypthima tabella* Marshall, 1883

Images: UN and UP by V. K. Chandrasekharan

Wing Span: 23–25 mm.

Larval Host Plants:

Poaceae.

Distribution: Western Ghats: Maharashtra, Karnataka, Tamil Nadu, Kerala; and Odisha.

Note: This is often treated as a subspecies of *Ypthima philomela* (Linnaeus, 1763).

Palni Four-ring *Ypthima ypthimoides* (Moore, 1881)

Images: Left by Sharan V. and right by Firos A.K.

Wing Span: 40–55 mm.

Larval Host Plants:

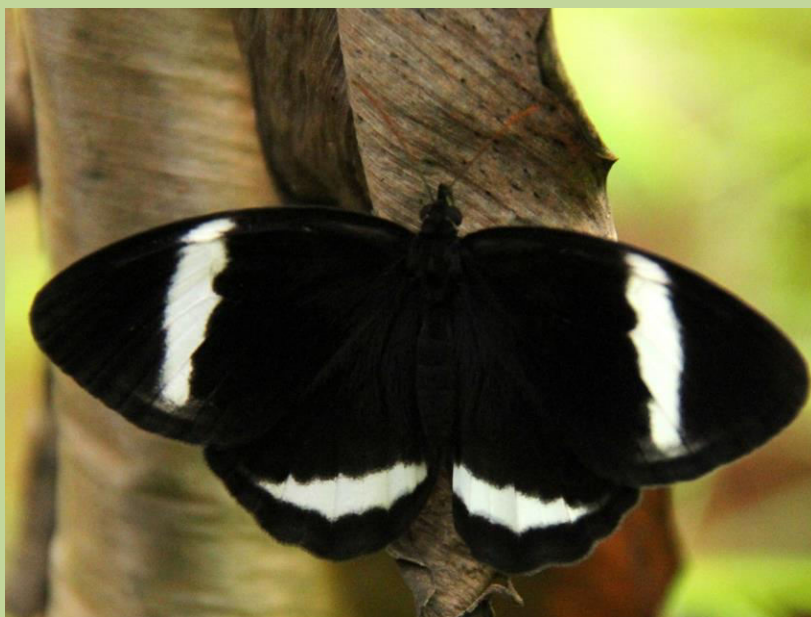
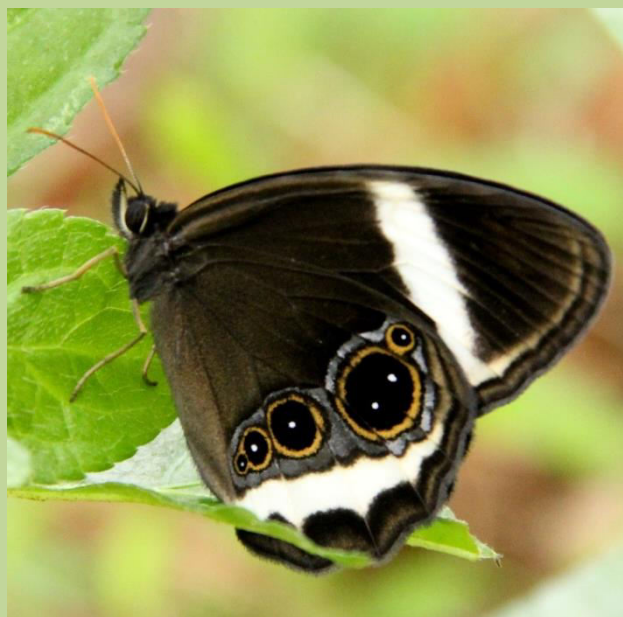
Axonopus compressus, *Cyrtococcum trigonum*, *Polytrias indica*, *Setaria barbata* (Poaceae).

Distribution: Western Ghats: Kerala and Tamil Nadu.

Endemicity:

Endemic to Western Ghats.

Tamil Catseye *Zipaetis saitis* Hewitson, 1863



Images: UN and UP by Anila Manalil

Wing Span: 60–65 mm.

Larval Host Plants:

Ochlandra scriptoria, *O. travancorica* (Poaceae).

Distribution:

Western Ghats: Goa and Karnataka to Kerala.

Endemicity:

Endemic to Western Ghats.

Nigger *Orsotriaena medus* (Fabricius, 1775)

(Syn. Medus Brown)



Image: UN by Raju Kasambe



Image: UP by Anila Manalil

Wing Span: 45–55 mm.**Larval Host Plants:***Brachiaria mutica*, *Oryza sativa* (Poaceae).**Distribution: Subspecies:***O. m. mandata* (Moore, 1857): Western Ghats: Southern Maharashtra (Sindhudurg) to Kerala; Madhya Pradesh and Chhattisgarh.

Common Evening Brown *Melanitis leda* (Linnaeus, 1758)



Images clockwise from top left: UN WSF and UN DSF by Raju Kasambe; UP by Tarun Karmakar

Wing Span: 60–80 mm.

Larval Host Plants:

Poaceae, *Apluda* spp., *Bambusa* spp., *Brachiaria mutica*, *Cyrtococcum* spp., *Digitaria* spp., *Eleusine* spp., *Oplismenus compositus*, *Oryza* spp., *Oryza sativa*, *Panicum* spp., *P. repens*, *Pennisetum* spp., *P. glaucum*, *P. purpureum*, *Rottboellia cochinchinensis*, *Saccharum officinarum*, *Setaria barbata*, *Zea Mays* (*Poaceae*).

Distribution: Subspecies:

M. l. leda (Linnaeus, 1758): Throughout India including Lakshadweep and Andaman & Nicobar Is.

Dark Evening Brown *Melanitis phedima* (Cramer, 1780)

Image: UN by Raju Kasambe



Image: UN by Vinayaraj

Wing Span: 60–85 mm.

Larval Host Plants:

Andropogon spp., *Apluda* spp., *Bambusa bambos*, *Cymbopogon* spp., *Cyrtococcum* spp., *Digitaria* spp., *Eleusine* spp., *Eragrostis* spp., *Ischaemum semisagittatum*, *Ochlandra* spp., *Oplismenus compositus*, *Oryza sativa*, *Panicum* spp., *Pennisetum* spp., *Setaria* spp., *Sorghum* spp., *Zea* spp., *Spodiopogon rhizophorus* (Poaceae).

Distribution: Subspecies:

M. ph. varaha Moore, 1857: Southern Maharashtra to Kerala.

Great Evening Brown *Melanitis zitenius* (Herbst, 1796)



Images: UN by Raju Kasambe

Wing Span: 80–95 mm.

Larval Host Plants:

Bambusa spp., *Bambusa bambos*, *Ochlandra* spp., *Ochlandra scriptoria* (Poaceae).

Distribution: Subspecies:

M. z. gokala Moore, 1857: Maharashtra to Kerala.

Travancore Evening Brown *Parantirrhoea marshalli* Wood-Mason, 1881

Image: UN by Subhiksha S.

Wing Span: 55–65 mm.

Larval Host Plants:

Bambusa bambos, *Bambusa vulgaris*, *Ochlandra scriptoria*, *Ochlandra talbotii*, *Ochlandra travancorica* (Poaceae).

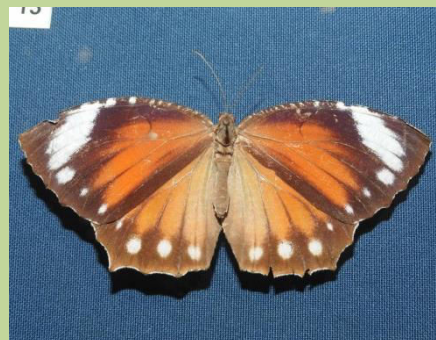
Distribution:

Karnataka and Kerala.

Endemicity:

Endemic to Western Ghats.

Common Palmfly *Elymnias hypermnestra* (Linnaeus, 1763)



Images clockwise from left: Male UN and Female UP by Raju Kasambe, Male UP by J.M. Garg

Wing Span: 60–80 mm.

Larval Host Plants:

Arecaceae, *Areca* spp., *Areca catechu*, *Calamus* spp., *C. rotang*, *C. pseudofeanus*, *C. thwaitesii*, *Arenga engleri*, *A. pinnata*, *A. wightii*, *Caryota urens*, *Chamaerops humilis*, *Dypsis lutescens*, *Cocos nucifera*, *Elaeis guineensis*, *Livistona chinensis*, *Hyophorbe lagenicaulis*, *Metroxylon sagu*, *Phoenix* spp., *P. loureiroi*, *Rhapis* spp., *R. excelsa*, *R. humilis*, *Trachycarpus fortunei*, *Licuala chinensis* (Arecaceae).

Distribution: Subspecies:

i. *E. h. caudata* Butler, 1871: Maharashtra to Kerala.

ii. *E. h. undularis* (Drury, 1773): Punjab to N.E. India; Maharashtra, Gujarat.

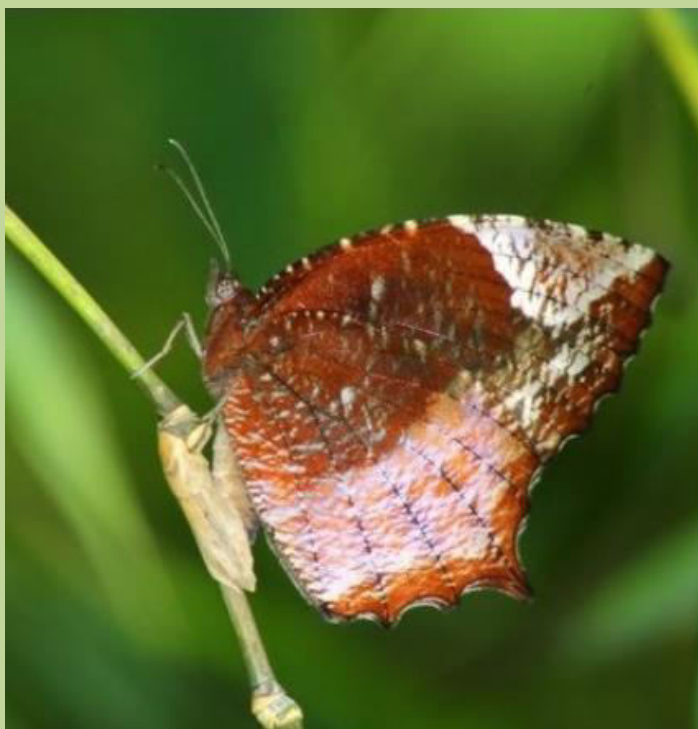
Tailed Palmfly *Elymnias caudata* Butler, 1871

Image: UN by Pranav Gokhale



Image: UP by Dattaprasad Sawant

Wing Span: 72–110 mm.

Larval Host Plants:

Areca catechu, *Arenga wightii*, *Cocos nucifera*, *Licuala grandis*, *L. chinensis*,
Phoenix spp., *P. loureiroi*, *Calamus rotang*, *C. thwaitesii*, *Caryota urens*,
Rhapis spp., *Livistona chinensis* (Arecaceae).

Distribution: Subspecies:

Maharashtra to Kerala.

Note: Varshney & Smetacek (2015) have considered this as a subspecies of Common Palmfly *E. hypermnestra caudata* Butler, 1871.

Cruiser *Vindula erota* (Fabricius, 1793)

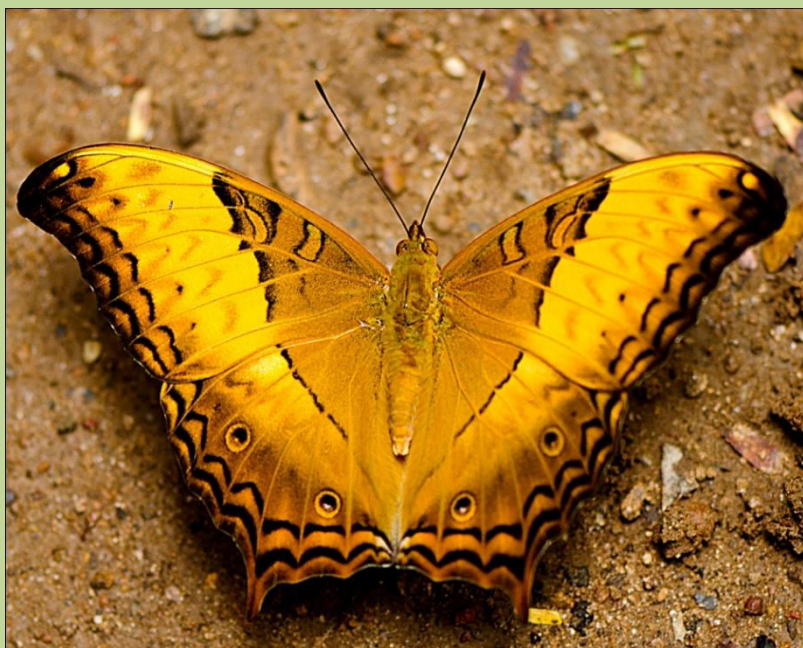


Image: Male UP by Uajith

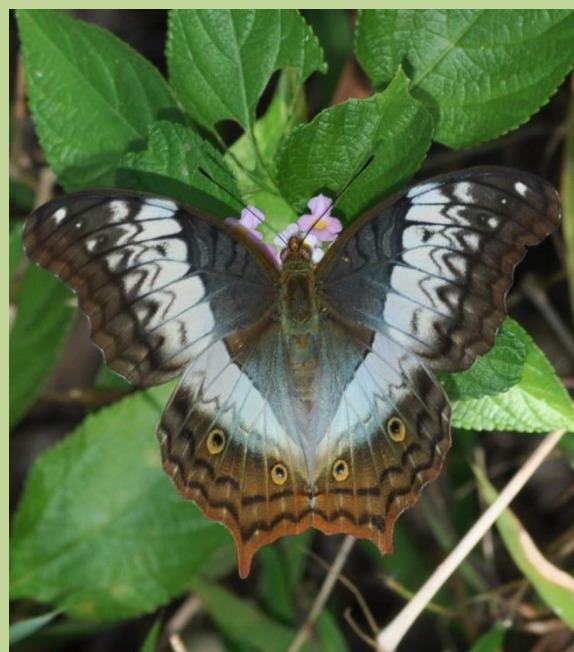


Image: Female UP by Sandip



Image: UN Male by Anila Manalil

Wing Span: 72–110 mm.

Larval Host Plants:

Adenia hondala (Passifloraceae)

Distribution: Subspecies:

V. e. saloma de Niceville, 1886: Southern Maharashtra (Amboli) to Kerala.

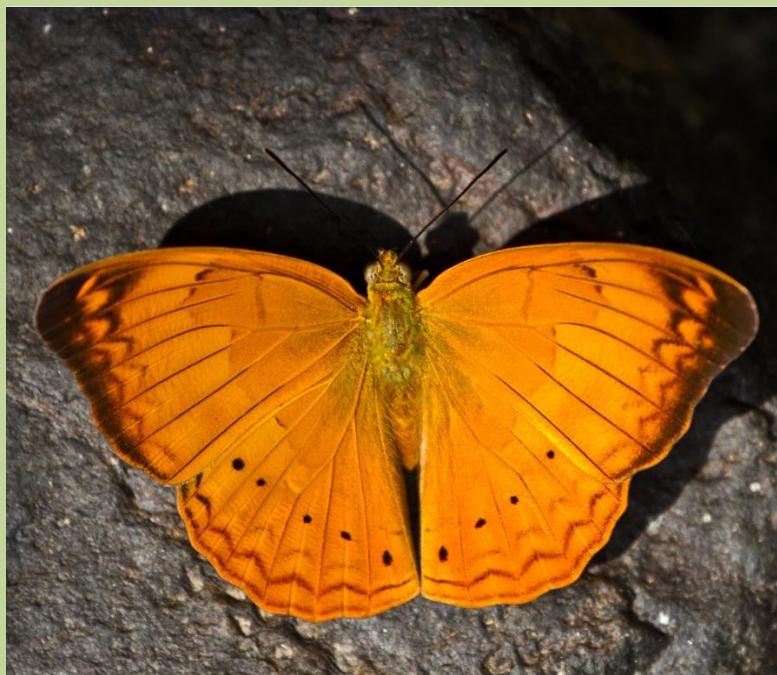
Tamil Yeoman *Cirrochroa thais* (Fabricius, 1787)

Image: UP by Vivek Puliyeri



Image: UN by Jeevan Jose

Wing Span: 60–75 mm.

Larval Host Plants:

Hydnocarpus alpina, *H. wightianus* (Salicaceae).

Endemicity:

Endemic to Western Ghats and Sri Lanka.

Distribution:

C. t. thais (Fabricius, 1787): Maharashtra, Goa, Karnataka and Kerala.

Rustic *Cupha erymanthis* (Drury, 1773)

Images: UP and UN by Jeevan Jose

Wing Span: 50–60 mm.

Larval Host Plants:

Glochidion eriocarpum (Phyllanthaceae), *Flacourtia* spp., *F. indica*, *F. jangomas*, *F. montana* (Salicaceae).

Distribution: Subspecies:

C. e. maja Fruhstorfer, 1898: Maharashtra (Matheran) southwards to Kerala.

Small Leopard *Phalanta alcippe* (Stoll, 1782)

Images: UP and UN by Jeevan Jose

Wing Span: 35–50 mm.

Larval Host Plants:

Rinorea bengalensis, *R. zeylanica* (Violaceae).

Distribution: Subspecies:

P. a. mercea (Evans, 1924): Maharashtra, Goa, Karnataka, Kerala.

Common Leopard *Phalanta phalantha* (Drury, 1773)

Images: UP and UN by Raju Kasambe

Wing Span: 50–60 mm.

Larval Host Plants:

Celastraceae, *Gymnosporia* spp., *G. bachmannii* (Celastraceae), *Dovyalis* spp., *D. hebecarpa*, *Flacourtia* spp., *F. indica*, *F. jangomas*, *F. montana*, *Populus* spp., *P. deltoids*, *Salix* spp., *S. tetrasperma*, *Xylosma longifolia* (Salicaceae), *Androsace* spp. (Primulaceae), *Smilax* (Smilacaceae).

Distribution:

P. p. phalantha (Drury, [1773]): Throughout India.

Palni Fritillary *Argynnis castetsi* Oberthur, 1891

Images: UP by Ashok Sengupta and UN by Vinayaraj

Wing Span: 65–85 mm.

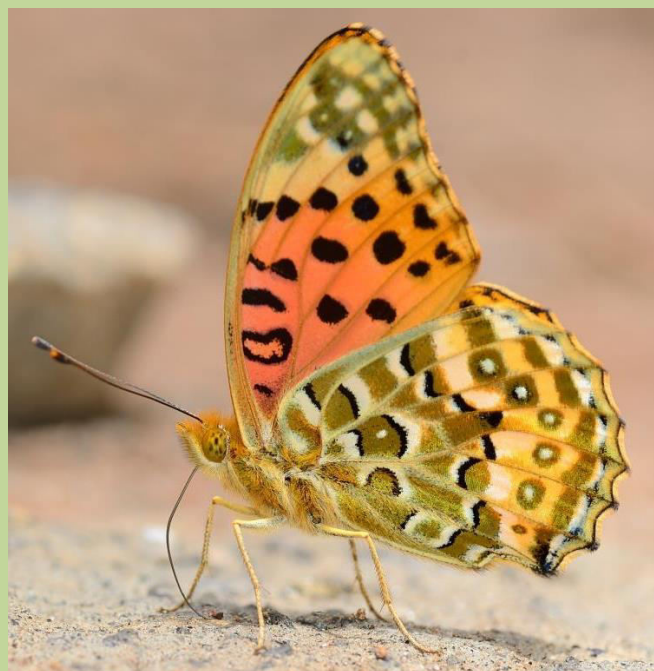
Larval Host Plants:

Viola spp., *V. betonicifolia*, *V. pilosa* (Violaceae).

Distribution: Kerala and Tamil Nadu.

Note: Varshney and Smetacek (2015) mentions three subspecies of Indian Fritillary *Argyreus hyperbius* (Linnaeus, 1763), viz.,

1. *A. h. castetsi* Oberthur, 1891: Kerala and Tamil Nadu
2. *A. h. hybrida* Evans, 1912: Tamil Nadu.
3. *A. h. hyperbius* (Linnaeus, 1763): Rajasthan to Madhya Pradesh, Gujarat, Uttar Pradesh; Jammu & Kashmir to N.E. India.

Nilgiri Fritillary *Argynnis (castetsi) hybrida* Evans, 1912

Images: UP and UN by S. Ramasamy Kamaya Naicker

Wing Span: 65–85 mm.

Larval Host Plants:

Lobelia spp. (Campanulaceae), *Viola* spp. (Violaceae).

Distribution: Nilgiri district, Tamil Nadu.

Note: Varshney and Smetacek (2015) mentions three subspecies of Indian Fritillary *Argyreus hyperbius* (Linnaeus, 1763), viz.,

1. *A. h. castetsi* Oberthur, 1891: Kerala and Tamil Nadu
2. *A. h. hybrida* Evans, 1912: Tamil Nadu.
3. *A. h. hyperbius* (Linnaeus, 1763): Rajasthan to Madhya Pradesh, Gujarat, Uttar Pradesh; Jammu & Kashmir to N.E. India. Further work is needed on this species group.

Tamil Lacewing *Cethosia mahratta* Moore, 1872

Image: UP by Mukul Hinge

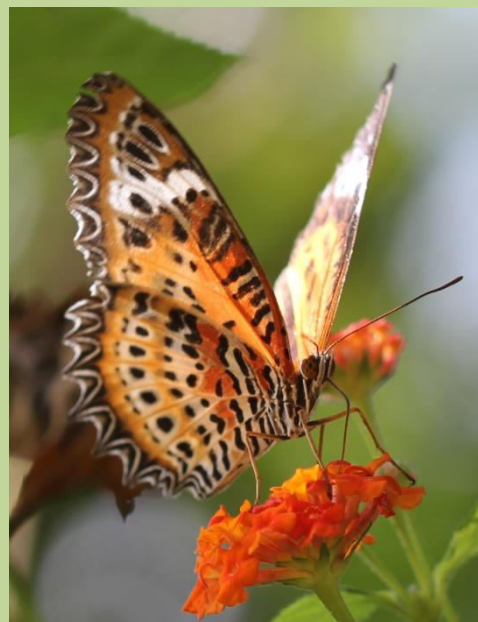


Image: UN by Chinmayi S.K.

Wing Span: 80–95 mm.

Larval Host Plants:

Adenia hondala, *Passiflora edulis*, *P. subpeltata* (Passifloraceae).

Endemicity:

Endemic to Western Ghats and Sri Lanka.

Distribution: Western Ghats: Southern Maharashtra (Amboli) to Kerala.

This is often treated as a subspecies of *Cethosia nietneri* C. & R. Felder, [1867].

Tawny Coster *Acraea violae* (Fabricius, 1793)

Images: UP and UN by Raju Kasambe

Wing Span: 50–65 mm.

Larval Host Plants:

Passiflora spp., *P. edulis*, *P. foetida*, *P. subpeltata*, *Turnera subulata*, *T. ulmifolia* (Passifloraceae), Cucurbitaceae, *Hibiscus cannabinus* (Malvaceae), *Adenia hondala*, *Aporosa cardiosperma* (Phyllanthaceae), *Vitex pinnata* (Lamiaceae).

Distribution:

Throughout India; Lakshadweep Islands.

Commander *Moduza procris* (Cramer, 1777)

Images: UP and UN by Raju Kasambe

Wing Span: 60–75 mm.

Larval Host Plants:

Cadaba fruticosa (Capparaceae), *Grewia nervosa* (Malvaceae), *Prunus dulcis* (Rosaceae), *Cinchona* spp., *Mitragyna parvifolia*, *Mussaenda frondosa*, *M. philippica*, *Neolamarckia cadamba*, *Ochreinauclea missionis*, *Wendlandia* spp., *W. heynei*, *W. thyrsoides* (Rubiaceae), *Hedyotis orixense* (Rubiaceae).

Distribution: Subspecies:

M. p. undifragus Fruhstorfer, 1906: Gujarat eastwards to Odisha and southwards to Kerala.

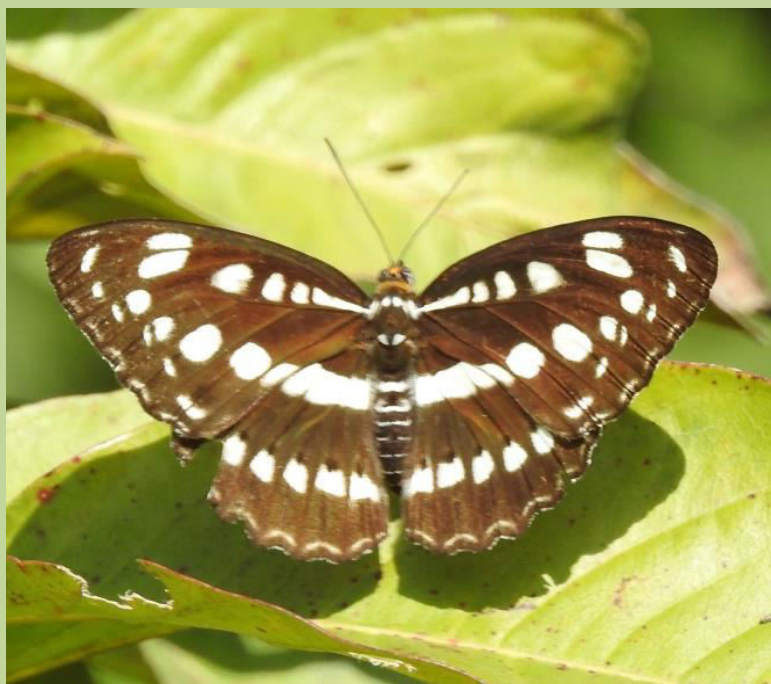
Common Sergeant *Athyma perius* (Linnaeus, 1758)

Image: UP by Raju Kasambe



Image: UN by Vinayraj

Wing Span: 60–70 mm.

Larval Host Plants:

Glochidion eriocarpum, *G. lanceolarium*, *G. heyneanum*, *G. wrightii*,
Phyllanthus spp. (Phyllanthaceae).

Distribution:

A. p. perius (Linnaeus, 1758): Western Ghats: Maharashtra southwards to Kerala, Madhya Pradesh and Jharkhand; Himachal Pradesh to N.E. India.

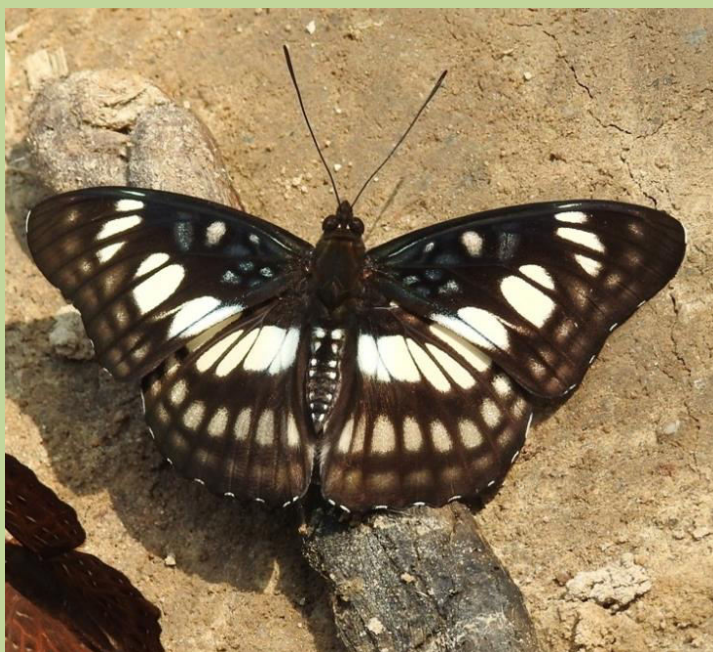
Blackvein Sergeant *Athyma ranga* Moore, 1857

Image: UP by Raju Kasambe

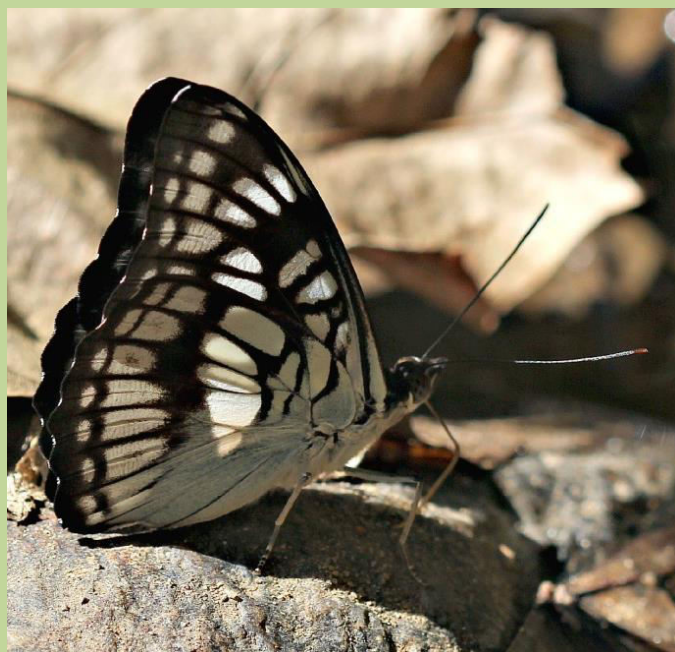


Image: UN by Chinmayi S.K.

Wing Span: 60–70 mm.

Larval Host Plants:

Chionanthus mala-elengi, *Ligustrum lucidum*, *L. sinense*, *Olea dioica* (Oleaceae).

Distribution: Subspecies:

A. r. karwara Fruhstorfer, 1906: Western Ghats: Southern Maharashtra (Amboli), Karnataka, Tamil Nadu and Kerala.

Staff Sergeant *Athyma selenophora* (Kollar, 1844)

Image: Female UP by Kishen Das

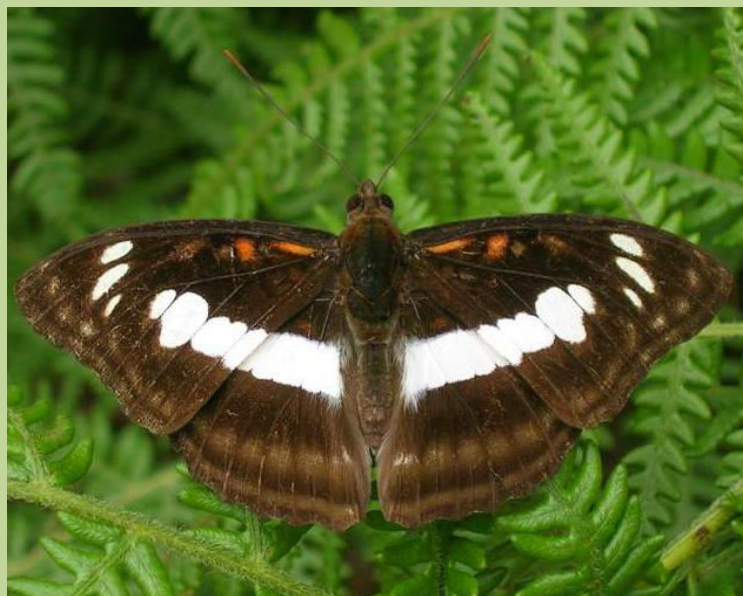


Image: Male UP by L. Shyamal

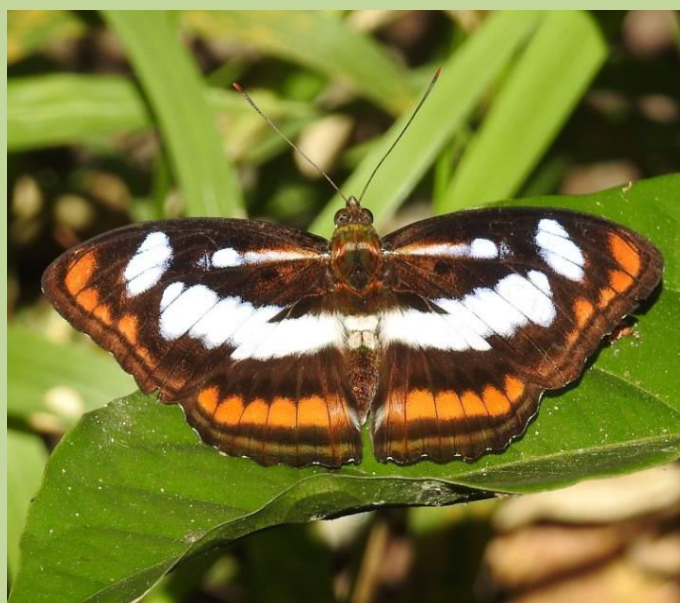
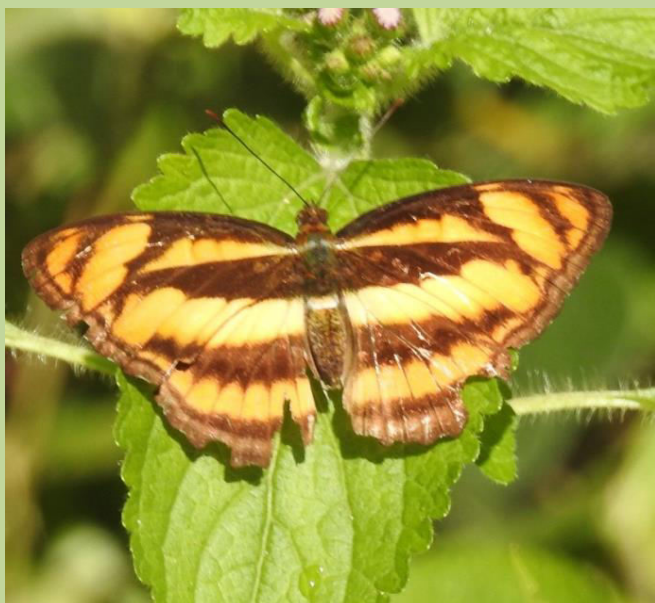
Wing Span: 55–75 mm.

Larval Host Plants:

Haldina cordifolia, *Mussaenda philippica*, *Wendlandia thyrsoides* (Rubiaceae).

Distribution: Subspecies:

A. s. kanara (Evans, 1924): Goa east to Jharkhand and southwards to Kerala.

Colour Sergeant *Athyma nefte* (Cramer, 1780)

Images: Female UP and Male UP by Raju Kasambe

Wing Span: 55–70 mm.

Larval Host Plants:

Glochidion lanceolarium, *G. heyneanum*, *G. zeylanicum* (Phyllanthaceae).
Mussaenda frondosa (Rubiaceae).

Distribution: Subspecies:

A. n. inara (Westwood, 1850): Western Ghats: Maharashtra (Matheran, Phansad, Pune southwards), Karnataka, Tamil Nadu and Kerala; and northwards to Odisha. Uttarakhand to N.E. India;

Common Lascar *Pantoporia hordonia* (Stoll, 1790)

Images: UP and UN by Raju Kasambe

Wing Span: 45–50 mm.

Larval Host Plants:

Acacia spp., *A. megaladena*, *A. sinuata*, *Albizia* spp., *A. odoratissima* (Fabaceae).

Distribution: Subspecies:

P. h. hordonia (Stoll, [1784]): Maharashtra eastwards to W. Bengal and southwards to Kerala; Uttarakhand to N.E. India.

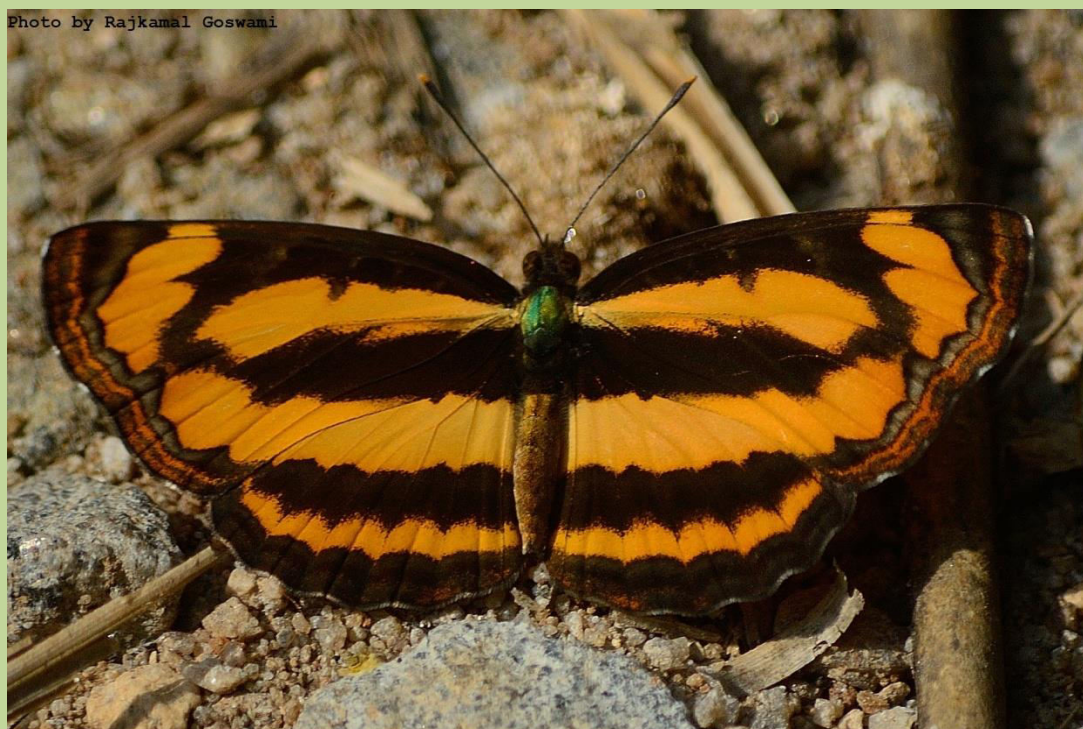
Extra Lascar *Pantoporia sandaca* (Butler, 1892)

Image: UP by Rajkamal Goswami

Wing Span: 45–50 mm.

Larval Host Plants:

Acacia spp., *A. caesia*, *Dalbergia horrida* (Fabaceae).

Distribution: Subspecies:

P. s. davidsoni Eliot, 1969: Uttarakhand to N.E. India, peninsular India south of Maharashtra. Recent records from Satara and Ratnagiri districts (Maharashtra).

Common Sailer *Neptis hylas* (Linnaeus, 1758)

Images: UP and UN by Raju Kasambe

Wing Span: 50–60 mm.

Larval Host Plants:

Bombax spp., *Bombax ceiba* (Bombacaceae), *Hevea brasiliensis* (Euphorbiaceae), Fabaceae, *Canavalia ensiformis*, *Canavalia gladiata*, *Flemingia* spp., *Lathyrus* spp., *Mucuna purpurea*, *Paracalyx* spp., *P. scariosus*, *Rhynchosia* spp., *Vigna cylindrica*, *V. unguiculata*, *Xylia xylocarpa* (Fabaceae), *Nothapodytes nimmoniana*, Malvaceae, *Corchorus*, *Grewia* spp., *Helicteres isora*, *Triumfetta* spp., *Urena lobata* (Malvaceae).

Distribution: Subspecies:

N. h. varmona Moore, 1872: Gujarat, Madhya Pradesh and Jharkhand southwards to Kerala.

Short-banded Sailer *Phaedyma columella* (Cramer, [1780])

(Syn. *Neptis columella* (Cramer, 1780))



Images: UP and UN by Raju Kasambe

Wing Span: 60–70 mm.

Larval Host Plants:

Dalbergia spp., *Pueraria tuberosa* (Fabaceae), *Gmelina arborea* (Lamiaceae),
Hibiscus mutabilis (Malvaceae).

Distribution: Subspecies:

P. c. nilgirica (Moore, 1889): Gujarat eastwards to W. Bengal and southwards to Kerala (entire Western Ghats).

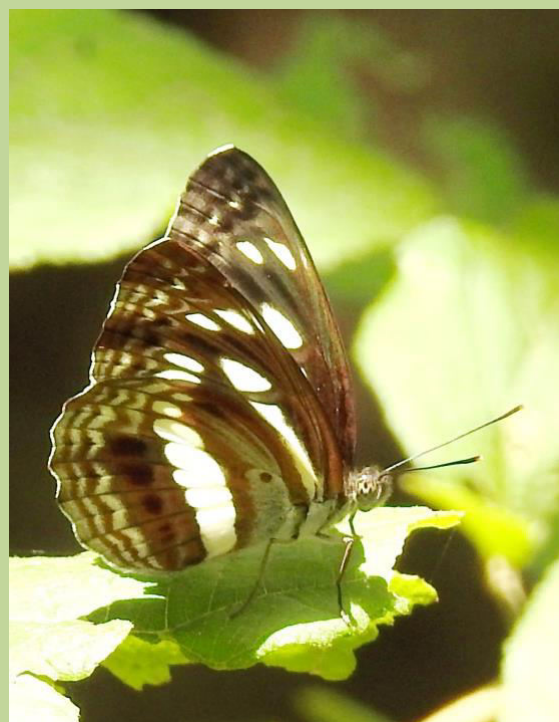
Chestnut-streaked Sailer *Neptis jumbah* (Moore, 1858)

Image: UP and UN by Raju Kasambe

Wing Span: 60–70 mm.

Larval Host Plants:

Bombax spp., *Bombax ceiba*, *Byttneria* spp. (Bombacaceae). *Trema* spp. (Cannabaceae). *Elaeocarpus* spp. (Elaeocarpaceae), *Mallotus philippensis* (Euphorbiaceae), Fabaceae, *Cassia fistula*, *Dalbergia* spp., *D. latifolia*, *Erythrina stricta*, *Moullava spicata*, *Pongamia*, *P. pinnata*, *Pterocarpus marsupium*, *Xylia* spp., *X. xylocarpa* (Fabaceae), *Nothapodytes nimmoniana* (Icacinaceae), Malvaceae, *Grewia* spp., *G. serrulata*, *Hibiscus* spp., *Pterygota alata*, *Thespesia populnea* (Malvaceae), Rhamnaceae, *Ziziphus* spp., *Z. jujuba* (Rhamnaceae), Urticaceae.

Distribution: Subspecies:

N. j. jumbah Moore, [1858]: Gujarat eastwards to W. Bengal and southwards to Kerala (entire Western Ghats); Sikkim to N.E. India.

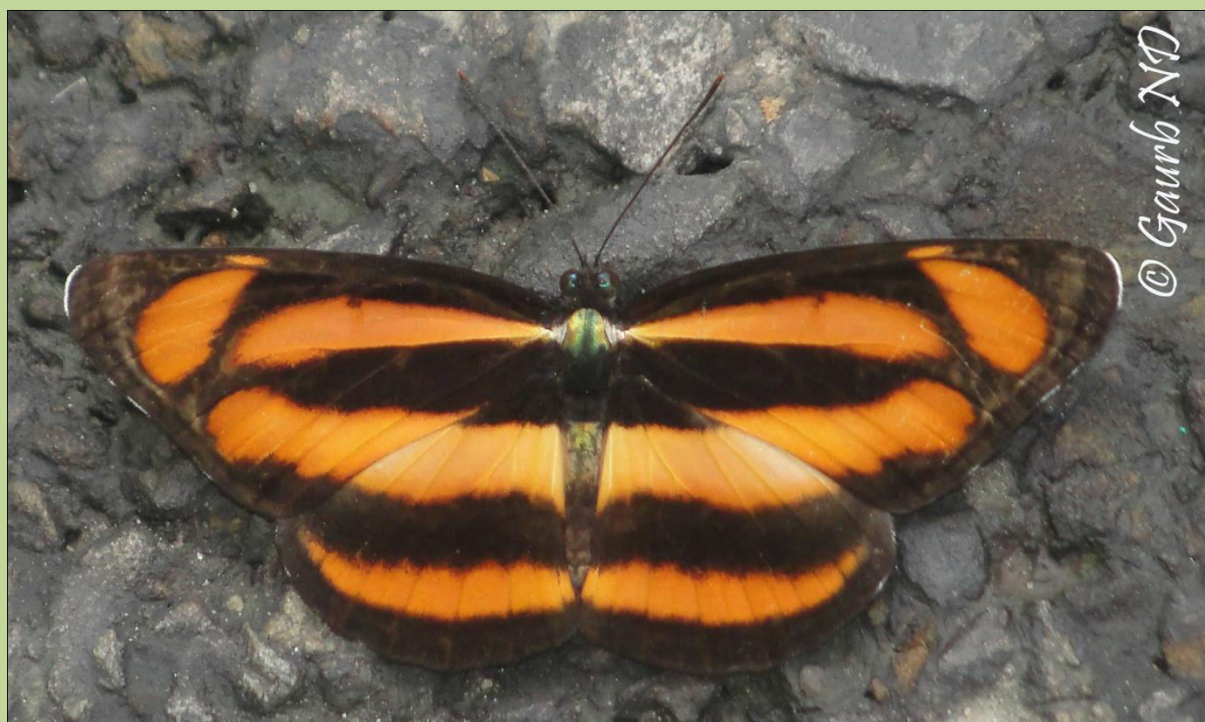
Yellow Jack Sailer *Lasippa viraja* (Moore, 1872)**(Syn. Yellowjack Sailer)**

Image: UP by Gaurab Nandi Das

Wing Span: 55–75 mm.

Larval Host Plants:

Dalbergia lanceolaria, *D. latifolia*, *D. racemosa* (Fabaceae).

Distribution: Subspecies:

L. v. kanara (Evans, 1924): Western Ghats: Goa, Karnataka and Kerala.

Sullied Sailer *Neptis nata* Moore, [1858]

(Syn. *N. soma*)



Image: UP by Raju Kasambe

Wing Span: 45–60 mm.

Larval Host Plants:

Trema orientalis (Cannabaceae).

Distribution: Subspecies:

N. n. hampsoni Moore, 1899: Western Ghats: Goa to Kerala (recent records only from Kerala). Andaman and Nicobar Islands.

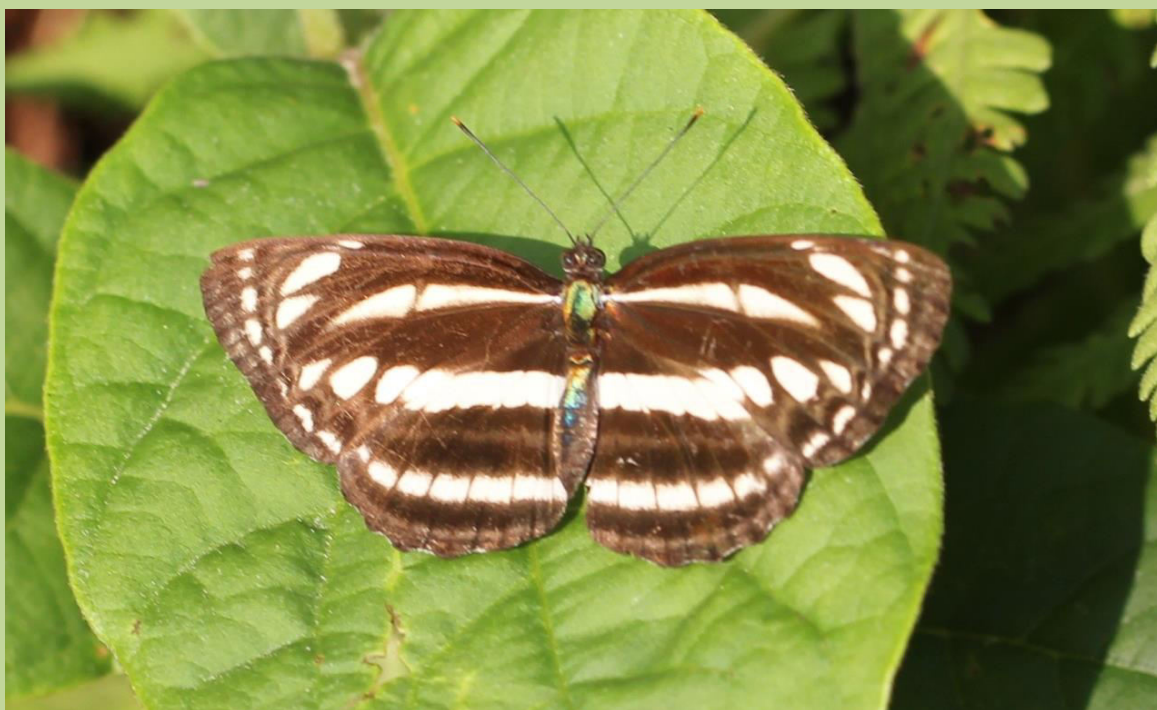
Clear Sailer *Neptis clinia* Moore, 1872

Image: UP by Raju Kasambe

Wing Span: 45–60 mm.

Larval Host Plants:

Celtis spp. (Cannabaceae).

Distribution: Subspecies:

N. c. kallaura Moore, 1881: Western Ghats: Maharashtra to Kerala. Recent records only from Kerala.

Clipper *Parthenos sylla* (Donovan, 1842)

(Syn. *Parthenos sylvia* (Cramer, 1775))

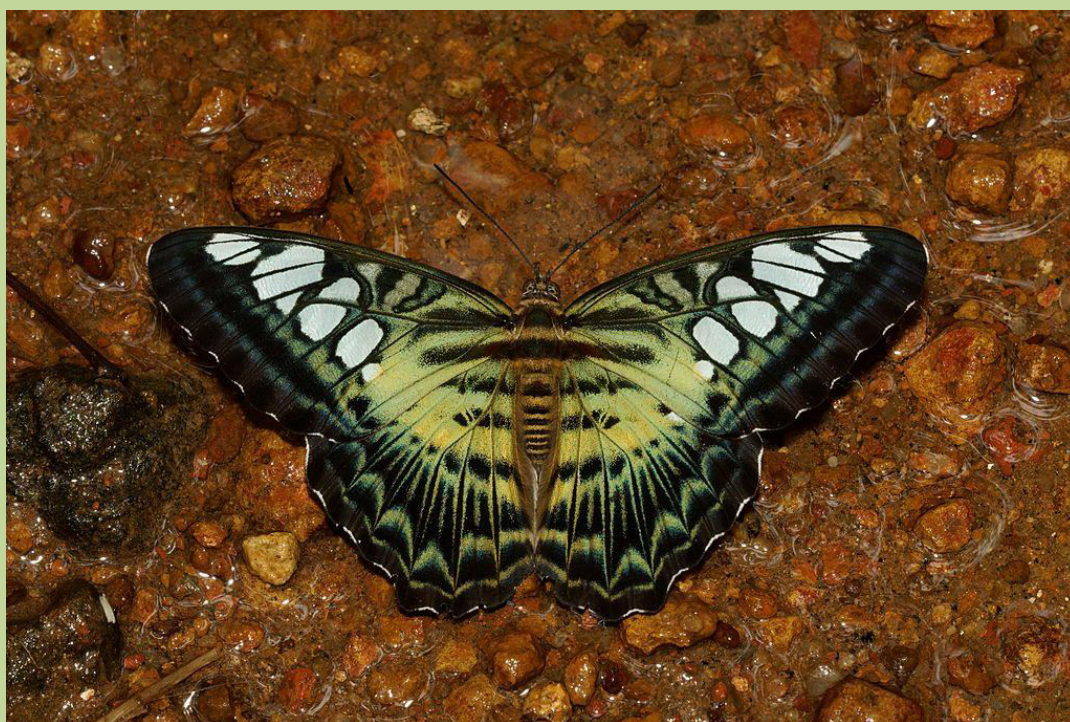


Image: UP by Jeevan Jose

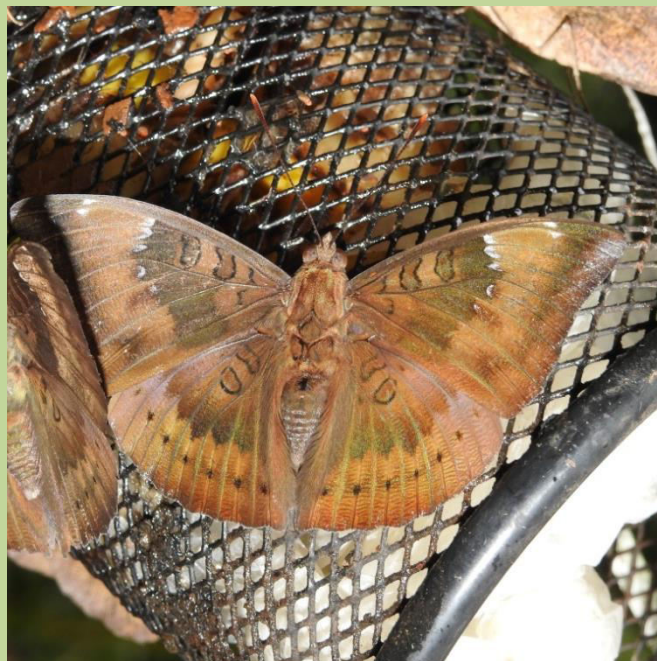
Wing Span: 95–130 mm.

Larval Host Plants:

Zanonia indica (Cucurbitaceae), *Tinospora sinensis* (Menispermaceae), *Adenia hondala* (Passifloraceae).

Distribution: Subspecies:

P. s. virens Moore, [1877]: Western Ghats: Southern Maharashtra, Goa, Karnataka and Kerala.

Common Baron *Euthalia aconthea* (Cramer, 1777)

Images: Female UP and Male UP by Raju Kasambe

Wing Span: 55–88 mm.

Larval Host Plants:

Anacardium occidentale, *Mangifera* spp., *Mangifera indica* (Anacardiaceae), *Bryonia* spp. (Cucurbitaceae), *Scurrula parasitica* (Loranthaceae), *Morus* spp., *Streblus asper*, *Trophis aspera* (Moraceae), *Rosa* spp. (Rosaceae).

Distribution: Subspecies:

E. a. anagama Fruhstorfer, 1913: Maharashtra to Odisha; Himachal Pradesh to Uttarakhand and Uttar Pradesh.

Subspecies:

E. a. meridionalis Fruhstorfer, 1913: Western Ghats: Maharashtra to Kerala and Andhra Pradesh.

Gaudy Baron *Euthalia lubentina* (Cramer, 1777)



Images: Clockwise from top left: UP Male by Raju Kasambe, Female UP by David Raju and Male UN by Raju Kasambe

Wing Span: 60–80 mm.

Larval Host Plants:

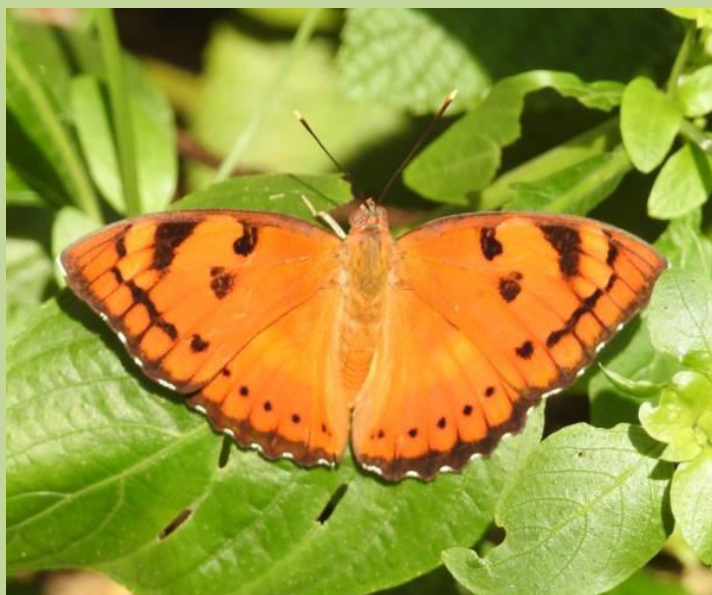
Dendrophthoe falcata, *D. glabrescens*, *Loranthus longiflorus*, *Scurrula parasitica* (Loranthaceae).

Distribution: Subspecies:

E. l. arasada Fruhstorfer, 1913:
Maharashtra to Kerala.

Subspecies:

E. l. lubentina (Cramer, [1777]): Maharashtra and Gujarat eastwards to Haryana, Odisha and West Bengal; Himachal Pradesh to N.E. India.

Baronet *Symphaedra nais* (Forster, 1771)

Images: UP and UN by Raju Kasambe

Wing Span: 60–70 mm.

Larval Host Plants:

Mangifera indica (Anacardiaceae), *Quercus incana* (Fagaceae), *Shorea robusta* (Dipterocarpaceae), *Diospyros exsculpta*, *D. melanoxylon* (Ebenaceae), *Grewia asiatica* (Malvaceae).

Distribution:

Tamil Nadu to Gujarat and Rajasthan, eastwards to West Bengal and along the Himalaya from Uttarakhand to West Bengal.

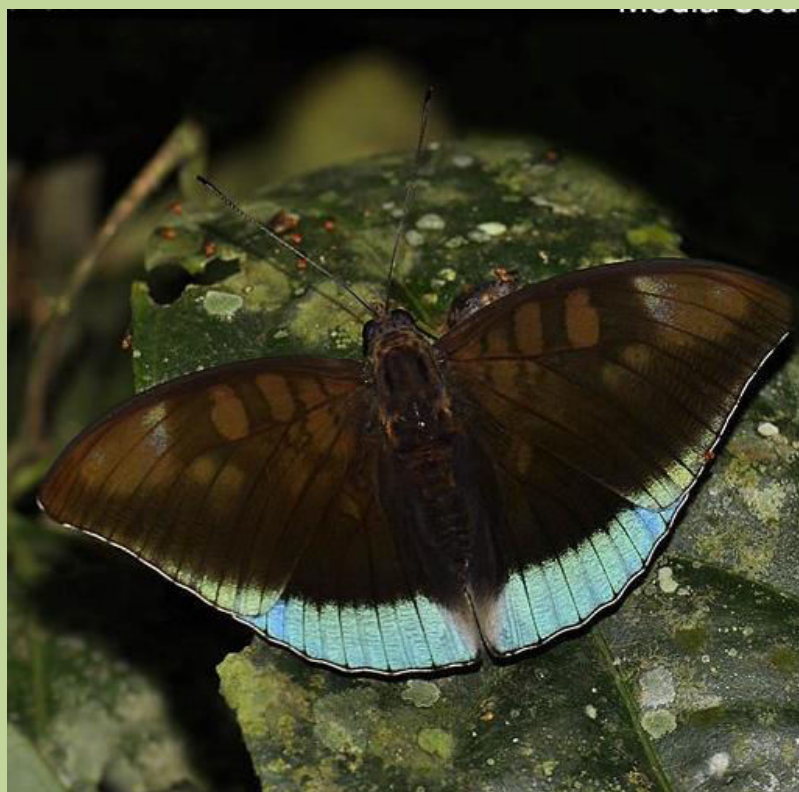
Blue Baron *Cynitia telchinia* (Ménétriés, 1857)**(Syn. *Euthalia telchinia*)**

Image: UP and UN by Hemant Ogale

Wing Span: 70–85 mm.

Larval Host Plants:

Data deficient.

Distribution:

C. t. telchinia (Menetries, 1857): Western Ghats: Karnataka; Sikkim to N.E. India.

Grey Count *Cynitia lepidea* (Butler, 1868)

(Syn. *Tanaecia lepidea* (Butler, 1868))



Image: UP by Raju Kasambe

Wing Span: 65–85 mm.

Larval Host Plants:

Careya arborea, *Planchonia careya* (Lecythidaceae). *Melastoma malabathricum* (Melastomataceae).

Distribution: Subspecies:

C. l. miyana (Fruhstorfer, 1913): Western Ghats: Maharashtra (Matheran) southwards to Kerala and eastwards to Odisha.

Red-spot Duke *Dophla evelina* (Stoll, 1790)

Images clockwise from left: Female UN, Male UP and Female UP all photos by Hemant Ogale

Wing Span: 81–113 mm.

Larval Host Plants:

Anacardium occidentale (Anacardiaceae), *Diospyros candolleana*, *D. malabarica*, *D. melanoxylon* (Ebenaceae).

Distribution: Subspecies:

E. e. laudabilis Swinhoe, 1890: Western Ghats: Southern Maharashtra (Amboli) to Goa, Karnataka, Tamil Nadu and Kerala.

Common Map *Cyrestis thyodamas* Boisduval, 1846

Image: UP by Nandish Songire

Wing Span: 50–60 mm.

Larval Host Plants:

Ficus spp., *F. benghalensis*, *F. neriifolia*, *F. racemosa*, *F. religiosa* (Moraceae).

Distribution: Subspecies:

C. t. indica Evans, 1924: Western Ghats: Gujarat to Kerala.

Angled Castor *Ariadne ariadne* (Linnaeus, 1763)

Image: UP by Raju Kasambe

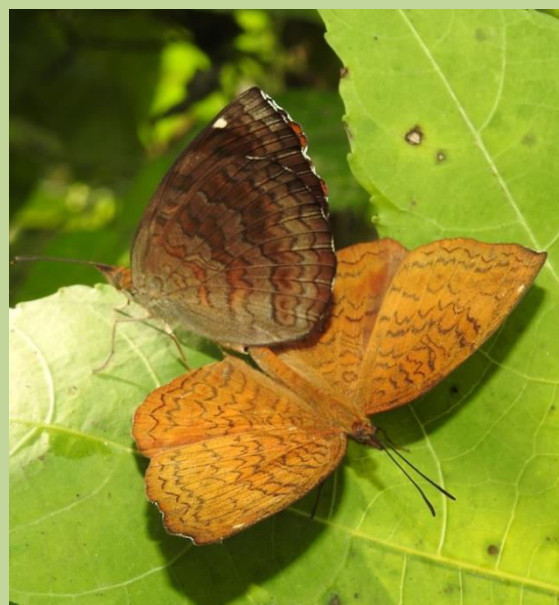
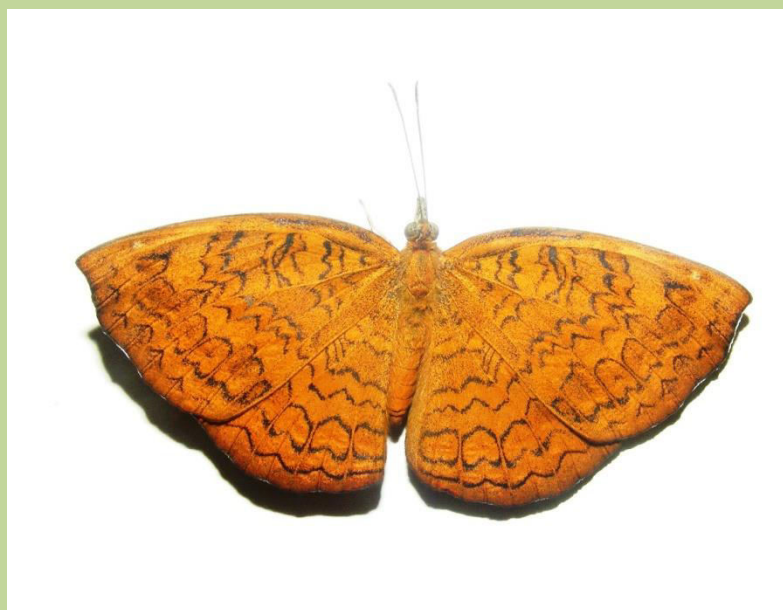
Wing Span: 45–60 mm.

Larval Host Plants:

Ricinus communis, *Tragia hispida*, *T. involucrata*, *T. plukenetii*
(Euphorbiaceae).

Distribution: Subspecies:

A. a. indica (Moore, 1884): Peninsular India from Gujarat and W. Bengal to Kerala (entire Western Ghats).

Common Castor *Ariadne merione* (Cramer, 1777)

UP and mating showing UN and UP. Images by Raju Kasambe

Wing Span: 45–60 mm.

Larval Host Plants:

Ricinus communis, *Tragia hispida*, *T. involucrata*, *T. plukenetii*
(Euphorbiaceae).

Distribution: Subspecies:

A. m. merione (Cramer, [1777]): Gujarat to Kerala (entire Western Ghats) and Andhra Pradesh.

Joker *Byblia ilithyia* (Drury, 1773)

Images: UP and UN by Raju Kasambe

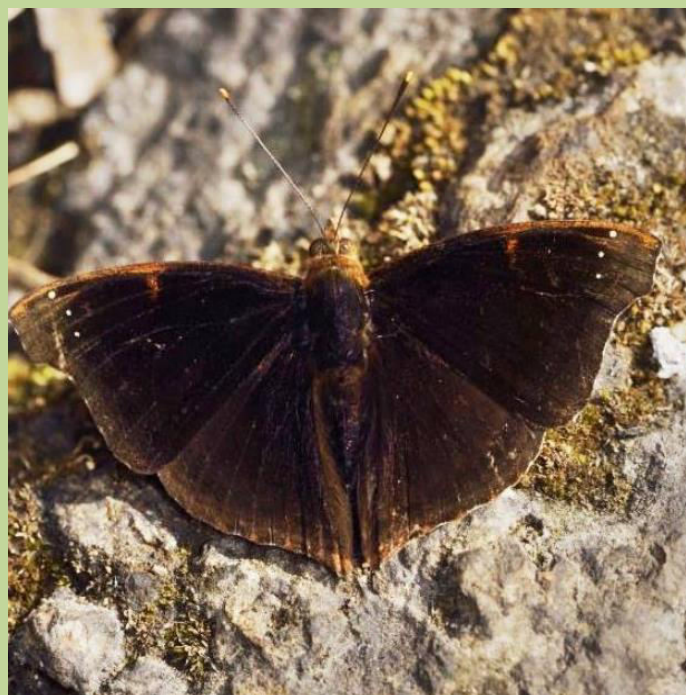
Wing Span: 45–55 mm.

Larval Host Plants:

Tragia involucrata, *T. plukenetii* (Euphorbiaceae).

Distribution:

Gujarat eastwards to Chhattisgarh and southwards to Tamil Nadu.

Black Prince *Rohana parisatis* (Westwood, 1850)

Images: Female UP by Mandar Sawant and Male UP by Divakar Thombre

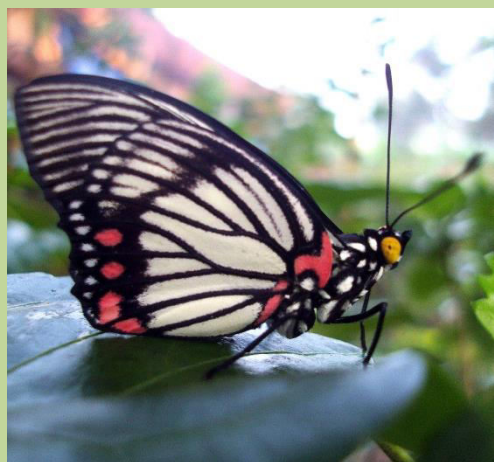
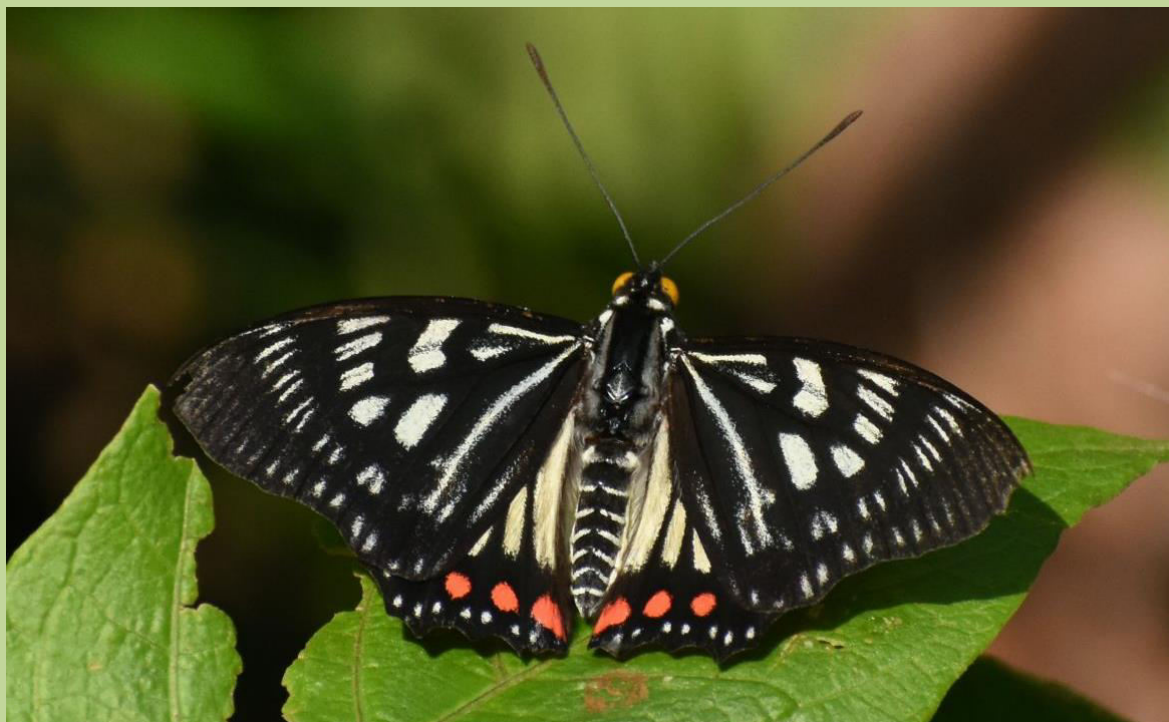
Wing Span: 45–50 mm.

Larval Host Plants:

Celtis spp., *C. philippensis*, *C. timorensis*, *C. tetrandra*, *C. lycodoxylon* (Cannabaceae).

Distribution: Subspecies:

R. p. atacinus Fruhstorfer, 1913: Western Ghats: Maharashtra southwards to Kerala.

Painted Courtesan *Euripus consimilis* (Westwood, 1850)

Images: UP by Felix and

UN by PKG Mohan

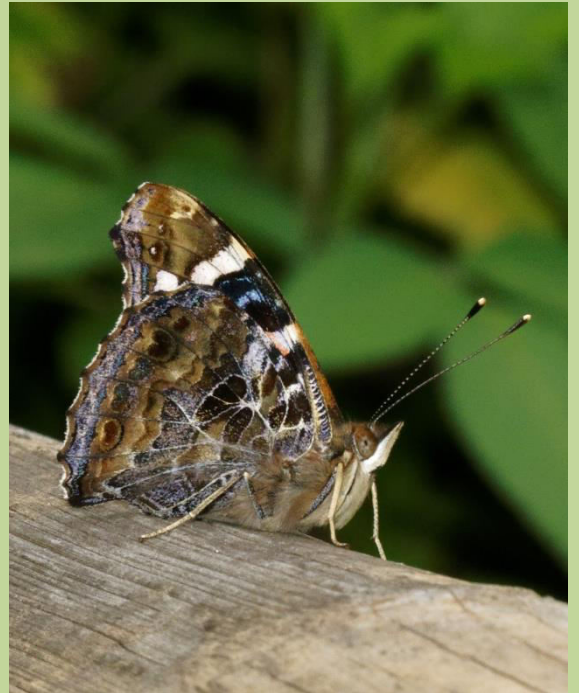
Wing Span: 60–85 mm.

Larval Host Plants:

Trema orientalis (Cannabaceae).

Distribution: Subspecies:

E. c. meridionalis Wood -Mason, 1881: Western Ghats: Karnataka, Tamil Nadu and Kerala.

Indian Red Admiral *Vanessa indica* (Herbst, 1794)

Images: UP and UN by Jeevan Jose

Wing Span: 55–65 mm.

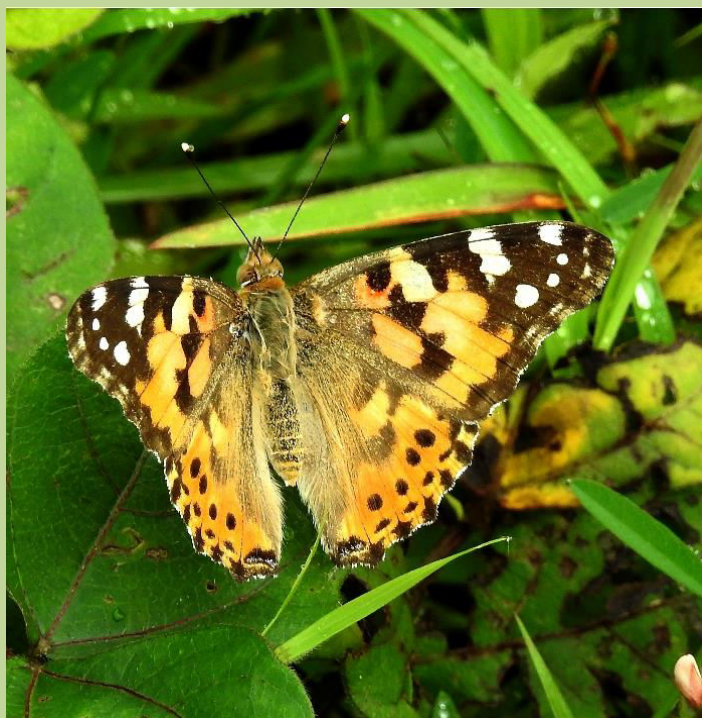
Larval Host Plants:

Blumea spp. (Compositae), *Zornia* spp. (Fabaceae), *Corchorus* spp. (Malvaceae), *Girardinia diversifolia*, *Urtica* spp. (Urticaceae).

Distribution: Subspecies:

V. i. pholoe Fruhstorfer, 1912: Western Ghats: Karnataka, Tamil Nadu and Kerala.

Painted Lady *Vanessa cardui* (Linnaeus, 1758)



Images: UP and UN by Raju Kasambe

Wing Span: 55–70 mm.

Larval Host Plants:

Anchusa spp., *Cynoglossum* spp., *Echium* spp. (Boraginaceae), *Arctotis* spp., *Artemisia* spp., *A. vulgaris*, *Berkheya* spp., *Blumea* spp., *Laggera alata*, *Carduus* spp., *Chrysanthemum* spp., *Cirsium* spp., *Cirsium arvense*, *Cynara scolymus*, *Filago* spp., *Gnaphalium* spp., *Helichrysum* spp., *Madia* spp., *Pentzia* spp., *Senecio* spp., *Sonchus* spp., *Tricholepis* spp. (Compositae), *Argyrolobium* spp., *Dolichos* spp., *Glycine* spp., *Lablab purpureus*, *Lupinus* spp., *Phaseolus* spp., *Zornia diphylla*, *Z. gibbosa* (Fabaceae), *Althaea* spp., *Malva* spp. (Malvaceae), *Argemone mexicana* (Papaveraceae); *Boehmeria* spp., *Debregeasia saeneb*, *Girardinia* spp., *G. diversifolia*, *Laportea* spp., *Urtica* spp. (Urticaceae).

Distribution:

Throughout India; Andamans and Lakshadweep Islands.

Blue Admiral *Kaniska canace* (Linnaeus, 1763)

Images: UP and UN by L. Shyamal

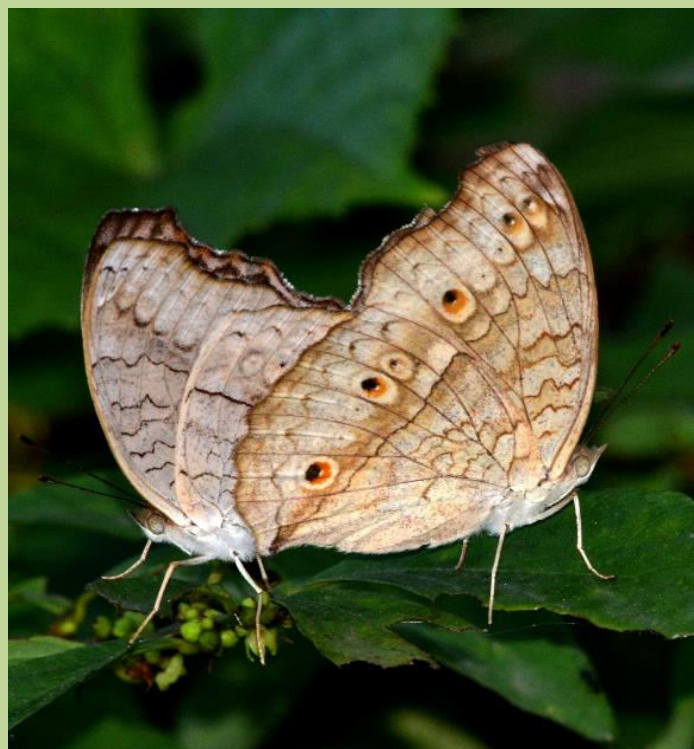
Wing Span: 60–75 mm.

Larval Host Plants:

Smilax spp., *S. zeylanica* (Smilacaceae).

Distribution: Subspecies:

K. c. viridis Evans, 1924: Western Ghats: Karnataka, Tamil Nadu and Kerala.

Gray Pansy *Junonia atlites* (Linnaeus, 1763)

Images: UP and UN of mating of DSF and WSF by Raju Kasambe

Wing Span: 55–65 mm.

Larval Host Plants:

Barleria spp., *Hygrophila auriculata*, *Hygrophila costata* (Acanthaceae).

Distribution:

J. a. atlites (Linnaeus, 1763): Throughout India except arid regions; Andamans and Nicobars.

Peacock Pansy *Junonia almana* (Linnaeus, 1758)

Images: Clockwise from left: UP, WSF UN and DSF UN by Raju Kasambe

Wing Span: 60–65 mm.

Larval Host Plants:

Acanthus spp., *Barleria* spp., *Hygrophila auriculata*, *Hygrophila costata* (Acanthaceae), *Gloxinia* spp. (Gesneriaceae), *Osbeckia* spp. (Melastomataceae), *Mimulus gracilis* (Phrymaceae), *Oryza sativa*, *Pennisetum* spp., *Pennisetum glaucum* (Poaceae), *Phyla nodiflora* (Verbenaceae).

Distribution: Subspecies:

J. a. almana (Linnaeus, 1758): Throughout India including Andaman Islands.

Yellow Pansy *Junonia hierta* (Fabricius, 1798)

Images: UP and UN by Raju Kasambe

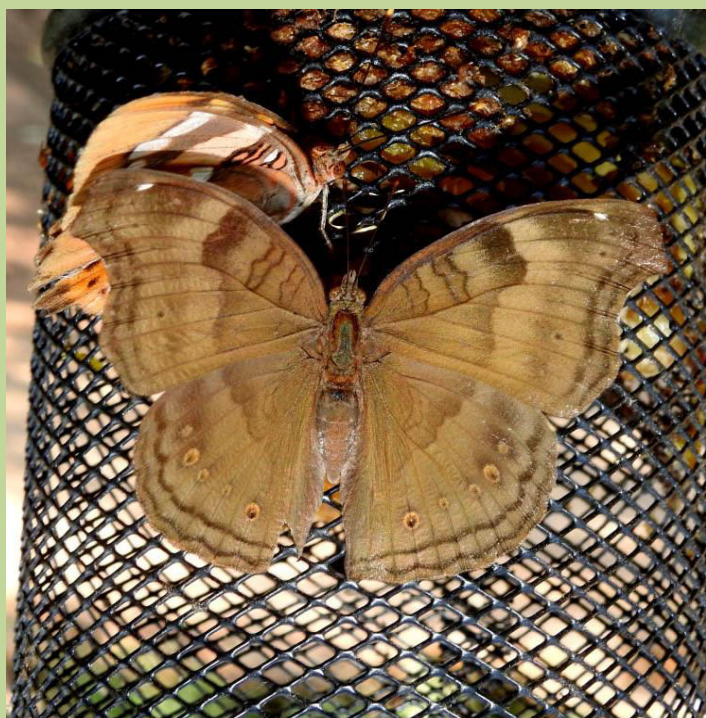
Wing Span: 45–60 mm.

Larval Host Plants:

Asystasia spp., *Barleria* spp., *Eremomastax* spp., *Hygrophila auriculata*, *Hygrophila costata*, *Justicia* spp., *Ruellia* spp. (Acanthaceae), *Mimosa pudica* (Fabaceae).

Distribution: Subspecies:

J. h. hierta (Fabricius, 1798): Throughout India except N.E. India and the Andaman Islands.

Chocolate Pansy *Junonia iphita* (Cramer, 1779)

Images: UP and UN by Raju Kasambe

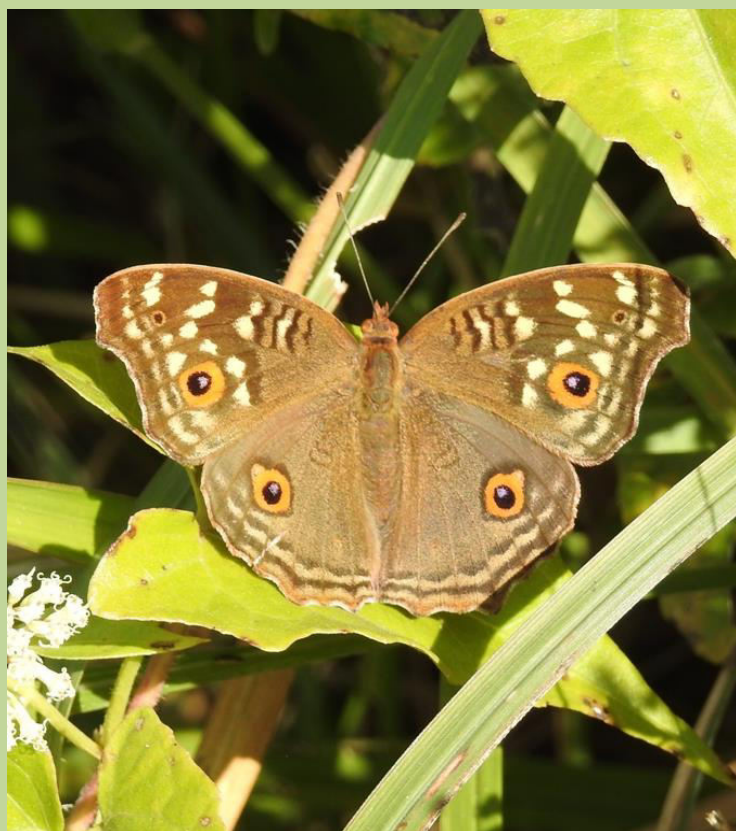
Wing Span: 55–80 mm.

Larval Host Plants:

Barleria cristata, *Dipteracanthus prostratus*, *Hygrophila* spp., *H. auriculata*, *Justicia micrantha*, *J. neesii*, *Ruellia elegans*, *R. simplex*, *R. tuberosa*, *R. tweediana*, *Strobilanthes* spp., *S. callosus*, *S. ciliata* (Acanthaceae), *Achimenes grandiflora* (Gesneriaceae).

Distribution: Subspecies:

J. i. pluviatalis Fruhstorfer, 1900: Peninsular India to Madhya Pradesh.

Lemon Pansy *Junonia lemonias* (Linnaeus, 1758)

Images: Clockwise from left: UP, WSF UN and DSF UN by Raju Kasambe

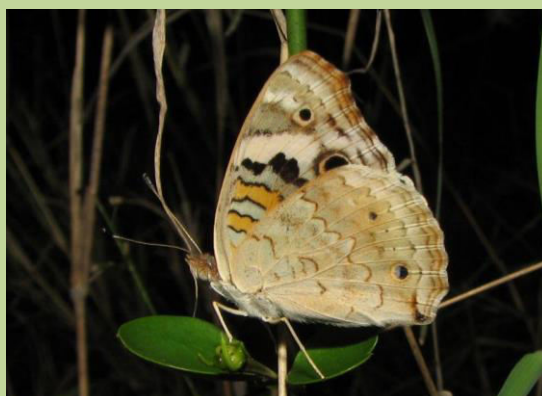
Wing Span: 40–60 mm.

Larval Host Plants:

Barleria spp., *Hygrophila auriculata*, *Hygrophila costata*, *Justicia neesii*, *Lepidagathis cuspidata*, *L. keralensis*, *Justicia procumbens*, *Nelsonia canescens* (Acanthaceae), *Cannabis sativa* (Cannabaceae), *Corchorus capsularis*, *Sida rhombifolia* (Malvaceae).

Distribution: Subspecies:

J. l. vaisya (Fruhstorfer, 1912): Rajasthan to Kerala and eastwards to Jharkhand.

Blue Pansy *Junonia orithya* (Linnaeus, 1758)

Images: Clockwise from left: Male UP by J.M. Garg, Female UP and UN by Raju Kasambe

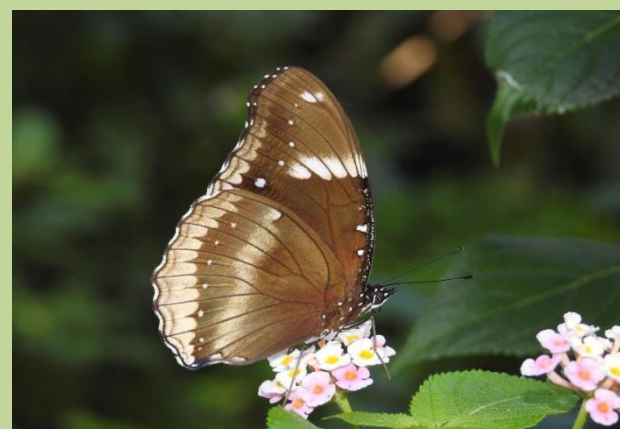
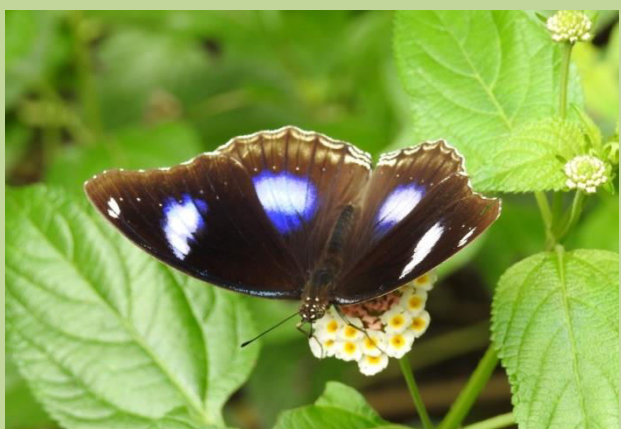
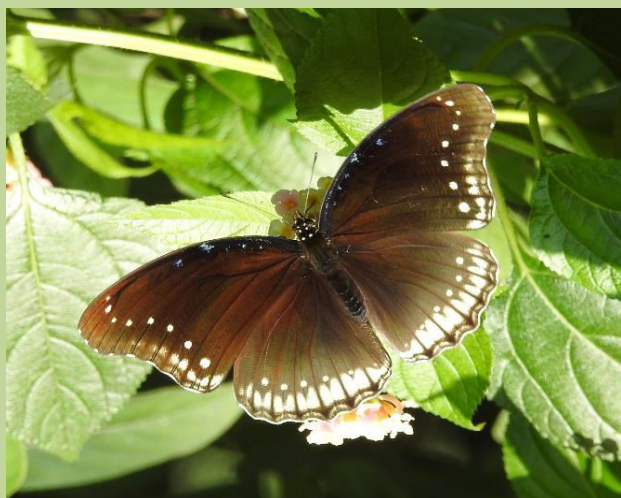
Wing Span: 45–60 mm.

Larval Host Plants:

Acanthus spp., *Barleria* spp., *B. mysorensis*, *Hygrophila auriculata*, *Justicia micrantha*, *J. neesii*, *J. procumbens*, *Lepidagathis keralensis*, *Nelsonia canescens*, *Ruellia tuberosa* (Acanthaceae), *Ipomoea batatas* (Convolvulaceae), *Mimosa pudica* (Fabaceae), *Plectranthus scandens* (Lamiaceae), *Misopates orontium* (Plantaginaceae), *Lepidagathis prostrata* (Acanthaceae).

Distribution: Subspecies:

J. o. swinhoei Butler, 1885: Jammu & Kashmir to Kerala and West Bengal.

Great Eggfly *Hypolimnas bolina* (Linnaeus, 1758)

Images: Clockwise from top left: Female UP, Female UN, Male UN and Male UP by Raju Kasambe

Wing Span: 70–110 mm.

Larval Host Plants:

Phaulopsis imbricata (Acanthaceae), *Alternanthera sessilis* (Amaranthaceae), *Sida rhombifolia* (Malvaceae), *Portulaca oleracea* (Portulacaceae), *Solanum torvum* (Solanaceae), *Elatostema cuneatum*, *Laportea interrupta* (Urticaceae).

Distribution:

H. b. jacintha (Drury, 1773): Throughout India except very arid regions; Andaman & Nicobar Islands.

Danaid Eggfly *Hypolimnas misippus* (Linnaeus, 1764)



Image: Male UP by Harishchandra Mhatre

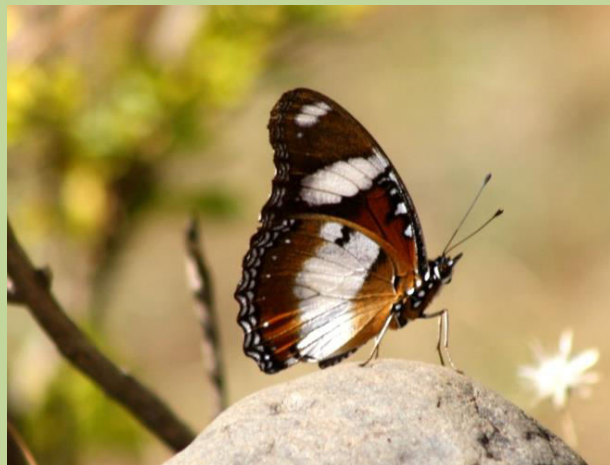
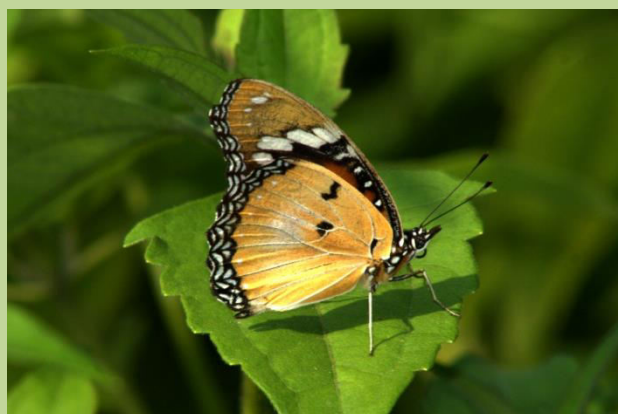
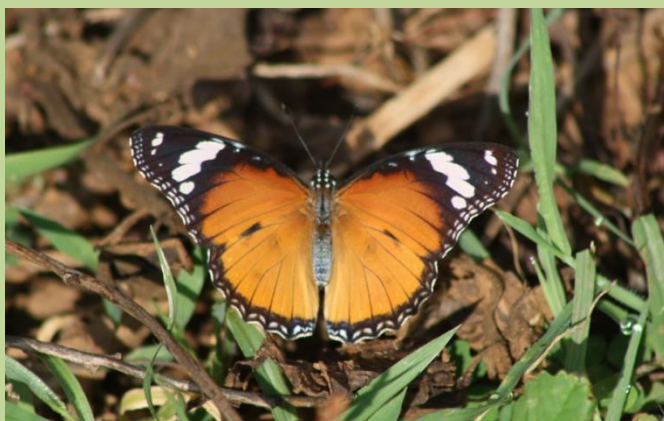


Image: Male UN by Raju Kasambe



Images: Female UP and UN by Raju Kasambe



Image: Female *inaria* form by Raju Kasambe

Wing Span: 70–85 mm.

Larval Host Plants:

Asystasia gangetica, *A. lawiana*, *Barleria cristata*, *Justicia betonica* (Acanthaceae),
Ipomoea carnea (Convolvulaceae),
Abelmoschus, *Abutilon* spp., *Hibiscus* spp., *Sida cordifolia* (Malvaceae), *Portulaca oleracea*, *P. pilosa* (Portulacaceae).

Distribution:

Throughout India, including Andaman & Nicobar Islands.

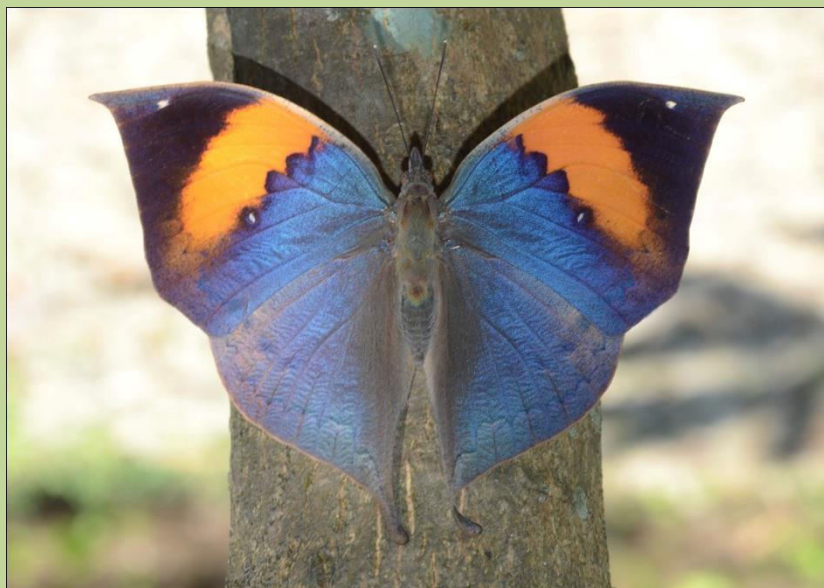
Orange Oakleaf *Kallima inachus* (Boisduval, 1846)

Image: UP by Shyam Ghatе



Image: UN by Dhaval Momaya

Wing Span: 85–110 mm.

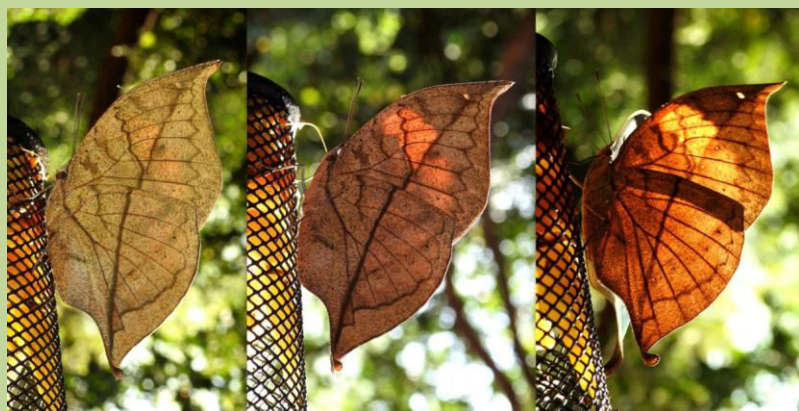
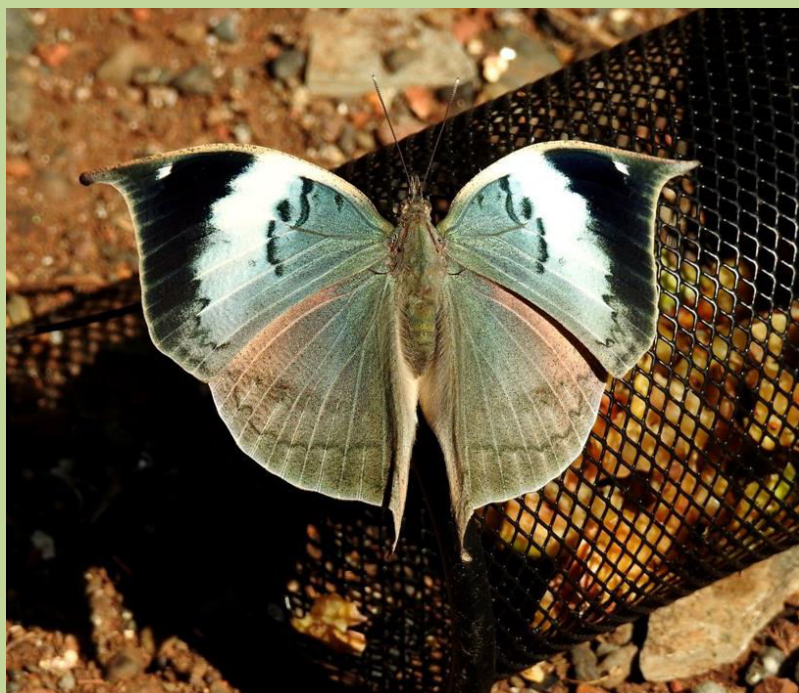
Larval Host Plants:

No plant reported from the Western Ghats. Following LHPs are from other areas: *Strobilanthes*, *Strobilanthes capitata* (Acanthaceae), *Persicaria orientalis* (Polygonaceae), *Prunus persica* (Rosaceae), *Girardinia diversifolia* (Urticaceae).

Distribution: Subspecies:

K. i. huegeli (Kollar, [1844]): Western Ghats: Maharashtra (recent records only from Bhimashankar, district Pune); Eastern Ghats, Madhya Pradesh and Gujarat; Jammu & Kashmir to Uttarakhand; Jharkhand,

Southern Blue Oakleaf *Kallima horsfieldi* (Kollar, 1844)



Images: Clockwise from top left:
UP and UN and UN against
sunlight showing confusing shades
by Raju Kasambe

Wing Span: 85–110 mm.

Larval Host Plants:
Strobilanthes callosus, *S.*

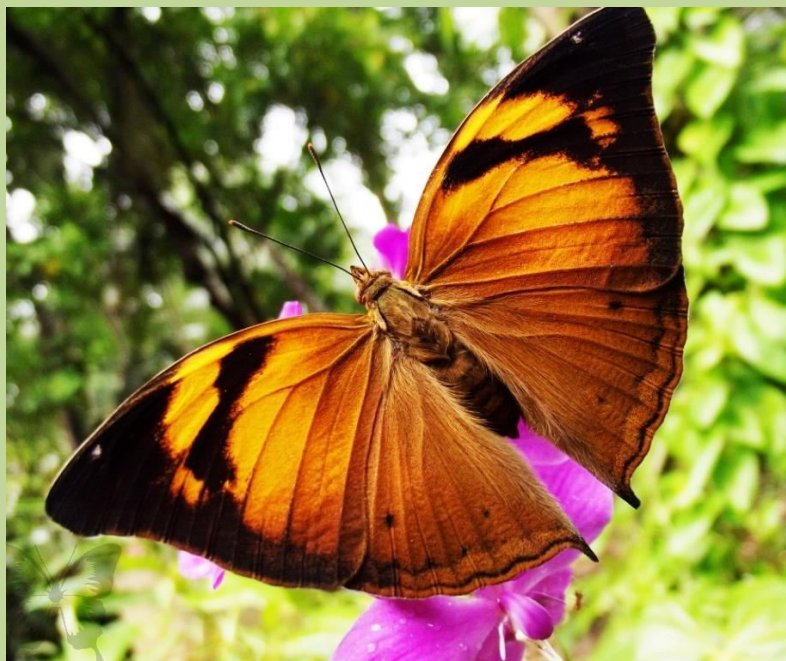
ciliata, *Pseuderanthemum malabaricum*, *Lepidagathis cuspidata*
(*Acanthaceae*).

Distribution:

Western Ghats: Maharashtra to Kerala.

Endemicity:

Endemic to Western Ghats.

Autumn Leaf *Doleschallia bisaltide* (Cramer, 1777)

Images: UP and UN by Anila Manalil

Wing Span: 75–85 mm.

Larval Host Plants:

Eranthemum spp., *Graptophyllum pictum*, *Pseuderanthemum malabaricum*, *Strobilanthes* spp. (Acanthaceae), *Urtica* spp. (Urticaceae).

Distribution: Subspecies:

D. b. malabarica Fruhstorfer, 1899: Western Ghats: Southern Maharashtra, Goa to Karnataka and Kerala.

Basics of Butterfly Gardening

In last few years there has been a tremendous increase in the interest in developing butterfly gardens (parks) in India. Many private as well as government butterfly gardens are coming up at various places across India. It is a good sign, in the sense we have started appreciating the importance of butterflies as objects of aesthetic value, for conservation as well as to create sustainable livelihood options for local communities. A short visit to a butterfly garden gives us enormous pleasure. Many of us might have visited butterfly gardens in Singapore and London and or other places in the world. It is fascinating to see so many colourful butterflies in these gardens and also to see thousands of visitors enjoying the company of butterflies!

Butterfly garden is a garden where you can see lot of butterflies belonging to different species at one place and in good numbers. An ideal open butterfly garden is nothing but a miniature representation of the forest in the adjoining area where various plants and flowers are grown. The environment is made as conducive as possible for butterflies found in the area.

This article is an attempt to summarise the basics of butterfly gardening in India. These will hopefully answer most of the questions people ask us about butterfly gardening in India.

To set up a new butterfly garden what we need is a suitable piece of land at the right location, man power, working knowledge of landscaping, good knowledge about butterflies and their requirements, knowledge about plants and finances to run the garden. If you want to make it a public place, you need some advertising or marketing skills to attract people to visit the butterfly garden and pay for the visit.

Understanding the laws of the land

Butterfly garden can be a closed one or an open one. A closed butterfly garden is an entire garden covered with green nets. The butterflies are released into this enclosed area either as adult butterflies or are reared in the garden itself. In Singapore and London butterfly parks, they import readymade pupae (chrysalis) from different parts of the world and keep them in small glass boxes (emergence cages) till the butterflies emerge. As soon as the butterflies emerge they are released into the garden. In absence of any predators, the butterflies survive till they die naturally.



Butterfly Garden enclosure at Changi Airport in Singapore (Image by Raju Kasambe)

But as per the Indian Wildlife Protection Act (1972) butterflies are wild animals and it is illegal to keep any wild animal in captivity (in any enclosure or cage) preventing its free movement. As soon as there is an enclosure, it becomes a zoo. And to run a zoo, permission is required from the Central Zoo Authority of India and also it is mandatory to follow their guidelines for establishing and managing a zoo. Getting permission from this authority (though creating a butterfly park may be a good objective) is a very tedious task for a general citizen and it may take years to get one.

But permissions can be sought by the government zoos, if they want to set up “butterfly enclosures” in their zoos. Zoos in India have huge swathes of land at prime locations; they could actually prove that they can create butterfly parks in India.

Hence, for private butterfly parks or gardens (owned by an individual or a corporate), the only and best option is to set up an ‘open butterfly garden’ on your own or leased land. Here the butterflies are free ranging and no butterfly is captured or captive. Fortunately, we don’t need any permission to create an open butterfly park in India. An excellent example is the ‘Ovalekar Wadi Butterfly Garden’ at Ovala Village near Thane city in Maharashtra. This was set up by Mr. Rajendra Ovalekar, an enthusiastic teacher and BNHS member. This garden is located on the fringe area of Sanjay Gandhi National Park in his private farm. It now attracts more than 125 species of butterflies and hundreds of visitors on Sundays.

Understanding the life cycle of butterflies



Egg of Indian Palm Bob butterfly image
by Raju Kasambe



Caterpillar image by Raju Kasambe



Pupa image by Raju Kasambe

Before starting work on setting up a butterfly garden one must understand the life cycle of butterflies. Butterfly life cycle completes in four stages, viz., egg, caterpillar (larva), pupa (chrysalis) and adult butterfly. Every butterfly lays its eggs on one of the few selected species of plants, which are called larval host plants. The caterpillars emerge from these eggs and feed voraciously on the leaves of these larval host plants. The caterpillar moults few times and stops eating after certain growth and gets metamorphosed into a pupa. After few days, an adult butterfly emerges from this pupa.

That means butterflies need the larval host plants on which their caterpillars will grow and food for the adult butterflies on which they will survive.

Landscaping for butterfly garden

It is important to have a good location for the butterfly garden, especially the open butterfly garden. The best location will be near a patch of forest, as the butterflies can be attracted to the garden by fulfilling the necessary requirements. However, it is not necessary to have big plot to attract butterflies to the garden. Even a small plot can be converted into a decent butterfly garden. It is better to avoid setting up a new butterfly garden in very dry areas or very cold areas, deserts, and in highly urbanized areas with not many butterfly species around. Once the land is acquired, it is important to do landscaping of the plot as per the requirements of a butterfly garden. If it already has lot of tree, there is no need to cut the tree, but to ensure plantation of new plants at the right locations. Landscaping should be in such way that there are places which provide shade, lot of sunshine, and wet patches too.

How to attract butterflies

Once the location of the butterfly garden is decided, we need to know the requirements of butterflies and how to attract them? As in India, we cannot have

a closed butterfly garden, the best option we have is to attract the butterflies and make them stay around in the butterfly garden. Butterflies will surely stay around in the garden, if all their requirements are fulfilled in the garden itself.

Larval Host Plants (LHP)

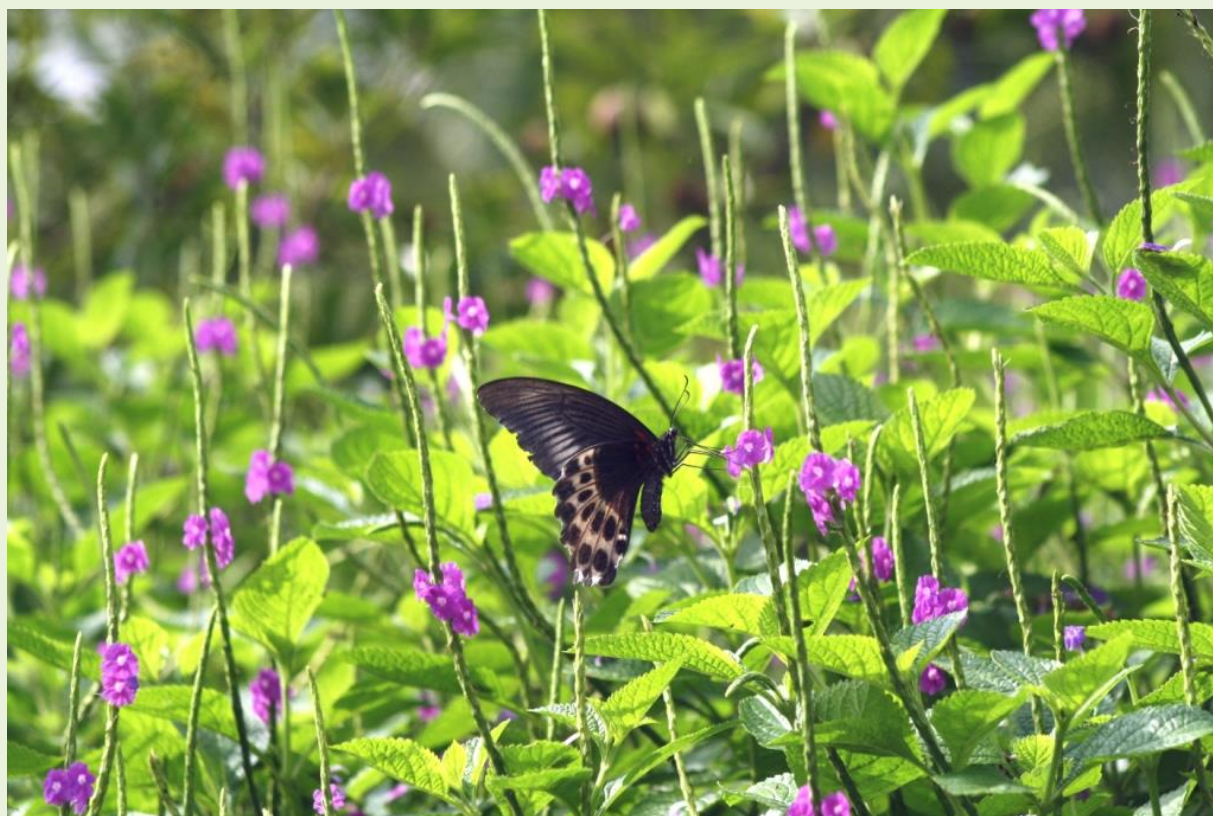
As mentioned above the life cycle of a butterfly completes in four stages, and each butterfly species lays its eggs on a specific plant or a choice of few species of plants. The larvae or caterpillars feed on these plants and hence these plants are termed as larval host plants (LHP). For example the Common Rose butterfly lays its eggs on *Aristolochia indica*; Spot Swordtail, Common Jay and Tailed Jay butterflies lay their eggs on *Polyalthia longifolia* and Common Mormon lays its eggs on *Murraya koenigii* (Curry Leaf) and *Citrus aurantifolia* (Lime tree).

The caterpillar which feeds on the LHP metamorphoses into a pupa in due course of time. The pupa is generally well camouflaged and stays immobile till an 'adult butterfly' emerges out of it (there is nothing like a 'baby butterfly').

The more is the diversity of the larval host plants in the butterfly garden the more number of butterfly species will start breeding in the garden. And there are more chances of the butterflies staying back in the area if they can fulfil all their requirements in the area. Hence, as a part of developing the butterfly garden, it is a continuous process to find out more and more larval host plants and plant or grow them in the garden. It is important to have better understanding among the staff (at least the gardener) of the butterfly garden to prevent uprooting of the larval host plants, mistaking them to be useless weeds. This is important in view of the fact that some butterfly species lay their eggs on grasses.

Attracting 'nectar-loving' butterflies

Butterflies do not have teeth they cannot eat solid food. Butterflies can only sip liquid food with the help of a very thin tongue, called proboscis. And they do not grow once they are born, they do not need a diversity of food for physical growth. What they need is liquid food which is rich in energy and acts like fuel for maintenance of their life activities, including flight and reproduction. The best energy-rich food available around us is the nectar in flowers. The other sources of liquid food are rotten fruits and dead animals.



Blue Mormon *Papilio polymnestor* on *Stachytarpheta indica*. Image by Raju Kasambe

Many species of butterflies love the nectar of flowers. These butterflies are attracted to the flowers due to their bright colours. Hence it is necessary to plant plots of flowering plants in the garden. The flowering plants should be selected carefully in such a way that throughout the year the garden has some plants flowering. Some of the common plants which attract lot of butterfly species for nectaring are *Lantana* spp., Jamaican Blue *Stachytarphaeta* spp., Cockscomb *Celosia* spp., wild *Xenia* spp. and *Ixora* species. A small herb *Tridax indica* attracts lot of blue (Lycaenid) butterflies for nectaring.

Every butterfly has its own choice of flowers it visits, due to the fact that the length of their proboscis varies in different species. Butterflies with short proboscis may not be able to sip nectar from flowers with a long tubular corolla. Some skippers have extremely long proboscis and hence can sip nectar from flowers with long tubular corolla. Many large sized swallowtail butterflies are not able to sip nectar from very small flowers as the flowers cannot bear their weight. Hence some of the swallowtails do not land on the flowers and keep fluttering while nectaring. Thus we need to have a diversity of flowering plants in the garden to cater to the needs of the various species of butterflies. Also while planting the flowering plants, they should be planted keeping in mind



Overripe and rotten fruits are kept in butterfly garden to fulfil the requirement of butterflies which don't like flowers. This is from Butterfly Garden at Changi Airport, Singapore. Image by Raju Kasambe

their expected height to which they will grow. This will provide a vertical dimension to the garden. Small plots of flowering plants of a particular species should be planted, thus adding to the aesthetic value of the butterfly garden, besides attracting hordes of butterflies.

Attracting the 'non-nectar-loving' butterflies

It is a wrong notion that all butterflies love nectar in flowers. There are many species of butterflies (many belong to the brush-footed and brown butterflies) which never visit flowers. These butterflies like to get their stock of food from rotten fruits, decaying fish, crabs, or prawns, the scat or dung or urine of wild animals and so on. These butterflies locate the food because of the strong smell. Some of the butterflies (besides moths) which are attracted to these include the Common Nawab *Polyura athamas*, Anamolous Nawab *Charaxes agrarius*, Black Rajah *Charaxes solon*, Tawny Rajah *Charaxes bernardus*, Blue Oakleaf *Kallima horsfieldii*, Orange Oakleaf *Kallima inachus*, Common Baron *Euthalia aconthea*, Gaudy Baron *Euthalia lubentina*, Common Evening Brown *Melanitis leda*, Angled Castor *Ariadne ariadne*, Common Palmfly *Elymnias hypermnestra*, Baronet *Euthalia nais* and many bushbrowns *Mycalesis* spp.



Milkweed butterflies like Tigris and Crows are attracted towards *Crotalaria* to get alkaloids. Image by Raju Kasambe

Rotten fruits can be kept in feeding trays in the butterfly garden to attract these butterflies. These feeding trays with rotting fruits may attract ants, which in turn will disturb the butterflies. To manage this problem, each feeding tray should be kept in another slightly larger tray filled with water. This will prevent ants to reach the bowl with fruits, creating a moat-like situation. The feeding tray can also be kept hanging on trees at various locations in the garden. Rotten or overripe fruits of Pineapple *Ananas comosus*, Custard apple *Annona reticulata*, banana, guava and Sapota (Sapodilla or Chikoo) *Manilkara zapota* are useful in attracting butterflies.

Attracting ‘alkaloid-loving’ male butterflies

Males of some butterfly species need specific alkaloids for reproduction. These alkaloids are provided by plants like Rattlepod *Crotalaria*, Turnsole *Heliotropium*, and *Eupatorium* species. The male butterflies flock these plants in huge numbers to suck these alkaloids and is a pleasant sight to see the butterflies engrossed in the activity. They need these chemicals to synthesize sex pheromones to attract females. Developing small plots of these plants ensure flocks of butterflies especially the tiger butterflies namely, Blue Tiger *Tirumala limniace*, Glassy Tiger *Parantica aglea*, Dark Blue Tiger *Tirumala*



Many species of butterflies gather at wet muddy patches for mud-puddling. Image by Raju Kasambe

septrionis, Plain Tiger *Danaus chrysippus*, Striped or Common Tiger *Danaus genutia*, Nilgiri Tiger *Parantica nilgiriensis* and the crow butterflies namely, Common Indian Crow *Euploea core*, Brown King Crow *Euploea klugii*. These are also called brush-footed butterflies.

Attracting ‘mud-loving’ butterflies

In the landscape of the butterfly garden, if there is natural depression it should be watered more often to create a muddy spot and a wet patch. Plastic sheets can be buried under this muddy spot to manage moisture level. Fine sand should be spread along the fringe of this muddy place and rotten leaf litter be mixed in the soil from time to time. Many butterflies (especially males of many species) visit such damp and muddy places to get their daily dose of water, minerals and various chemicals needed for their physiological needs. This is known as ‘mud-puddling’. Yellows of many species gather on mud for mud-puddling in huge numbers.

Also, before planting the plots of plants, a permanent arrangement for watering the plants should be done. This could be the sprinklers or other methods, which

will save lot of manpower in future needed to water the entire garden nearly every day.

What should not be done

One of the most important rules to be followed in butterfly gardening is to strictly avoid the use of any insecticide, pesticide, weedicide or any similar chemicals to kill or control some pests. These will eventually kill the butterfly caterpillars (which are nothing but butterflies to be born) and drive the butterflies away from your butterfly garden.

Another thing is avoiding plantation of rose plants. These are useless for butterflies and need spraying of insecticides to protect it from various moth caterpillars.

Avoid using chemical fertilizers. Instead, the garden can have a small place where natural fertilizers can be produced by composting the leaf litter, cattle dung and other garbage from the garden. This natural fertilizer should be used for the larval host plants for their healthy growth.

Landscaping

To set up an open butterfly garden, it is necessary to have a proper plan of landscaping. But if there are trees already in place, the plan should be designed accordingly without cutting the existing trees. The plan should clearly describe the plots for flowering trees and take care of the needs of various species of trees as per their requirement and dependence on sunlight. There should be a small nursery totally enclosed to protect small saplings of various plants collected for the garden. Few saplings of each larval host plant (at least the rare ones) should be protected here as genetic pool. Sometimes entire plants are finished by hordes of caterpillars. This stock will help replenish the plants in the garden again.

Landscaping should involve plan of narrow footpaths in the garden which allows access to most of the areas in the garden. These if planned well can prevent trampling of the plants by visitors, while trying to photograph some butterfly. These may not be of concrete, but of small bricks to allow movement of caterpillars.

Sunshine is very important in the life of butterflies as they are cold blooded animals and need to bask in sunlight before they start their activities in the



Butterfly garden landscaping should take into consideration many factors like parking space, toilets, etc.
(Image by Raju Kasambe)

morning. They become active after basking in sunlight for some time. Hence the garden should have lots of flower beds with lot of sunshine.

While planting large trees in the garden, lot of planning and futuristic thinking is needed. When they grow, they should not create shadow in entire butterfly garden. If the garden is very big, the trees can be planted along the eastern edge or they should be planted along the western edge or forming a line running north-south in the middle of the garden. This will keep big areas with lot of sunlight.

A small shade for visitors with resting facilities, a tea and snacks kiosk and basic amenities like toilets ensure the comforts of the visitors.

Maintaining a Genetic Stock and nursery of plants

It is important to maintain a genetic stock of all larval host plants as well as nectar plants in the form of seeds or grafts. The seeds should be collected whenever they are found and kept safe till the pre-monsoon period. The seeds should be grown in a netted nursery and then shifted to the butterfly garden. This should be done at least to plant species *Tagala* and *Aristolochia* as the

caterpillars of Roses are known to finish the entire plants leaving nothing behind.

Manpower

To manage an open butterfly garden you need to hire at least one gardener, a plant expert, a butterfly expert and a person to manage the entire set up. Of course, you can play few roles out of these.

Money matters (Financial Management of the Garden)

You need some seeding money to start with butterfly gardening and there is no guarantee that it will earn you money. If you have the land needed to set up the butterfly garden available with you, the initial cost will be less. But there is recurring cost to maintain a butterfly garden which includes purchase of saplings, hiring a gardener, honorarium to butterfly and plant experts (many roles can be played by one person), electricity bills, and water bills and so on. Butterfly garden needs proper management and regular maintenance, otherwise the weeds overgrow the larval host plants and soon it loses the beauty of being a ‘butterfly garden’!

You can rear a butterfly in your house

Anybody can rear a butterfly in his house! That’s pretty simple. You can search for caterpillars on larval host plants of butterflies. A Lime tree *Citrus* spp. or a Curry Leaf tree *Murraya koenigii* may have caterpillars of Common Mormon *Papilio polytes* and Lime Butterflies *Papilio demoleus*. Pick that caterpillar and bring with it a stock of tender leaves to feed it on. Keep the caterpillar in a transparent box. Keep some sticks in the box for the caterpillar to pupate. Clean the box every day for the excreta. The caterpillar will get converted to a pupa one day. One fine morning you will notice that a beautiful butterfly has emerged from the pupa. Free it as soon as it is ready to fly....It’s your baby after all!

Join some butterfly gardening Course

The best way to learn about any subject is to read or learn from experts in the field. Organizations like Bombay Natural History Society (BNHS) Mumbai conducts courses, which offers opportunities to learn about butterflies. The six month long “Certificate Course in Butterfly Studies” conducted by BNHS provides learning opportunity to amateurs about butterflies and butterfly gardening. The course is mostly conducted on weekends.



Readymade butterfly pupae or chrysalis are brought and kept in specially designed 'emergence cages' in closed butterfly gardens. The butterflies are released when they emerge from these pupae (Images by Raju Kasambe)

Future opportunities in India

In India, we can have small closed butterfly gardens in major zoos and at major International Airports for recreation. For maintaining these gardens, we can start rearing butterflies belonging to the commoner but beautiful and colourful species, not necessarily rare or those protected under various Schedules of the Indian Wildlife Protection Act (1972), with the help of tribal communities and create thousands of jobs.

Butterfly 'nurseries' for selected species (not listed under the various schedules of the Act) can be set up where butterflies can be reared. The pupae reared from such 'nurseries' can be supplied to butterfly parks around the country. This can very well be done in villages around Western Ghats and the Himalayas by setting up of big nurseries of local larval host plants in village lands or in private lands. What is needed is little flexibility in the Indian Wildlife Protection Act (1972) and initiative from the NGOs or forest department.

Do's and don'ts of butterfly gardening:

Dos':

1. Know the diversity of butterflies in your area.
2. Plant larval host plants.
3. Plant nectar plants.
4. Provide rotten fruits.

5. Keep a damp patch for mud-puddling.
6. Keep some shady places.

Don'ts:

1. Avoid use of insecticides, weedicides (herbicides) or such chemicals.

List of some butterfly gardens in India:

Please note that this is not a comprehensive list. There are many more butterfly gardens and more are coming up. The list is in alphabetical order arranged according to the name of the states.



Butterfly Park (enclosure), Ramoji Film City, Hyderabad, Andhra Pradesh

Butterfly Conservatory of Goa, Ponda, Goa.

Sammilan Shetty's Butterfly Park, Santhadi House, Butterfly Park Road, Belvai Village, Mangalore, Karnataka

NPCIL plant site, Kaiga, Karnataka.

Butterfly Garden, Bhanerghatta,

Bannerghatta National Park, Bengaluru, Karnataka

Butterfly Safari, Thenmala, district Kollam, Kerala

Butterfly Park at Nilambur Teak Museum, Malappuram, Kerala

Salim Ali Bird Sanctuary, Thattekad, Kerala

Thumboormuzhy, Peechi KFRI & Shakthan Thamburan Museum, district Thrissur, Kerala.

Nilamboor KFRI sub-center, district Malapuram, Kerala

Thattekad Bird Sanctuary, district Ernakulam, Kerala.

BNHS Butterfly Garden, BNHS Conservation Education Centre, near Film City, Goregaon (E), Mumbai, Maharashtra.

Maharashtra Nature Park, Dharavi, Mumbai, Maharashtra.

Ovalekar Wadi Butterfly Garden, Ghodbundar Road, Ovala Village, Thane, Maharashtra.

NPCIL plant site, Boisar, district Palghar, Maharashtra.

Rotary Garden, Gharda Circle, Dombivli, district Thane, Maharashtra.

Butterfly Park, Vandalur Zoo, Chennai, Tamil Nadu.

Butterfly Park, Sri Rangam, Trichy, Tamil Nadu.

Banabitan Butterfly Garden, Salt Lake, Kolkata, West Bengal.

Eden Garden Butterfly Garden, Kolkata, West Bengal.

Ecopark Butterfly Garden, Rajarhat, Kolkata, West Bengal.

Ramsai Butterfly Conservatory, Gorumara National Park, West Bengal.

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Some books on the subject:

Gardening for Butterflies: How You Can Attract and Protect Beautiful, Beneficial Insects. March 23, 2016. Published by the Xerces Society (Author). Pages: 288.

Gardening for Birds, Butterflies, and Bees: Everything you need to Know to Create a wildlife Habitat in your Backyard. February 2, 2016. Author: Editors at Birds and Blooms. Pages: 256.

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Important Websites:

<http://www.ifoundbutterflies.org/>

<http://flutters.org/>

Important source for photos:

<https://commons.wikimedia.org>

About the e-Book

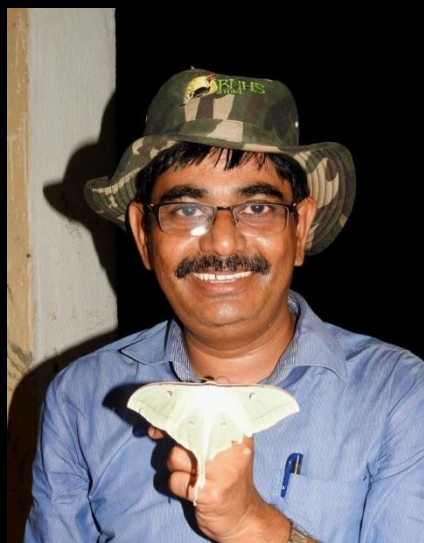
Butterflies of Western Ghats

This e-Book can be downloaded free of cost and used on any smart phone or computer. It is made as a simple PDF so that any species can be searched using the search option.

This e-Book provides information about 322 species of butterflies, out of 336 species, occurring in the Western Ghats part of India. Photographic illustrations showing the upperside, underside, male and female, wherever dimorphic, are given for most of the species. Information about the subspecies found in the Western Ghats or South India is added. Along with common names and complete scientific names, wing span, updated list of larval host plants and updated distribution of each species is given.

This e-Book has chapters on Life cycle and Morphology of a Butterfly, Western Ghats – Butterflies, Importance of Butterflies in Nature, 'Western Ghats – Hotspot of Biodiversity' highlighting the importance of butterflies and the Western Ghats and 'basics of butterfly gardening'.

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After working in marketing in pharmaceutical field for almost 18 years, joined Bombay Natural History Society (BNHS), Mumbai in 2010 as IBA Program Manager. Now Assistant Director – Education, Conservation Education Centre (CEC), Mumbai

Research publications:

More than 100 research articles in international and national journals about birds and butterflies.

Books Published:

Bhartatil Sankatgrast Pakshi (aka Threatened Birds of India)(Marathi) (2006)

Indian Grey Hornbill (Lambert, Germany) (2011)

Maharashtratil Phulpakhre (aka Butterflies of Maharashtra) (Marathi) (2012, 2016)

e-Books (Free to download)

Maharashtratil 100 Samanya Pakshi (aka 100 Common Birds of Maharashtra) (Marathi) (2015)

Shetatil Pakshi (aka Birds in Agriculture) (Marathi) (2017)

Butterflies of Western Ghats (First Edition) (2016)

Books published as Co-author

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